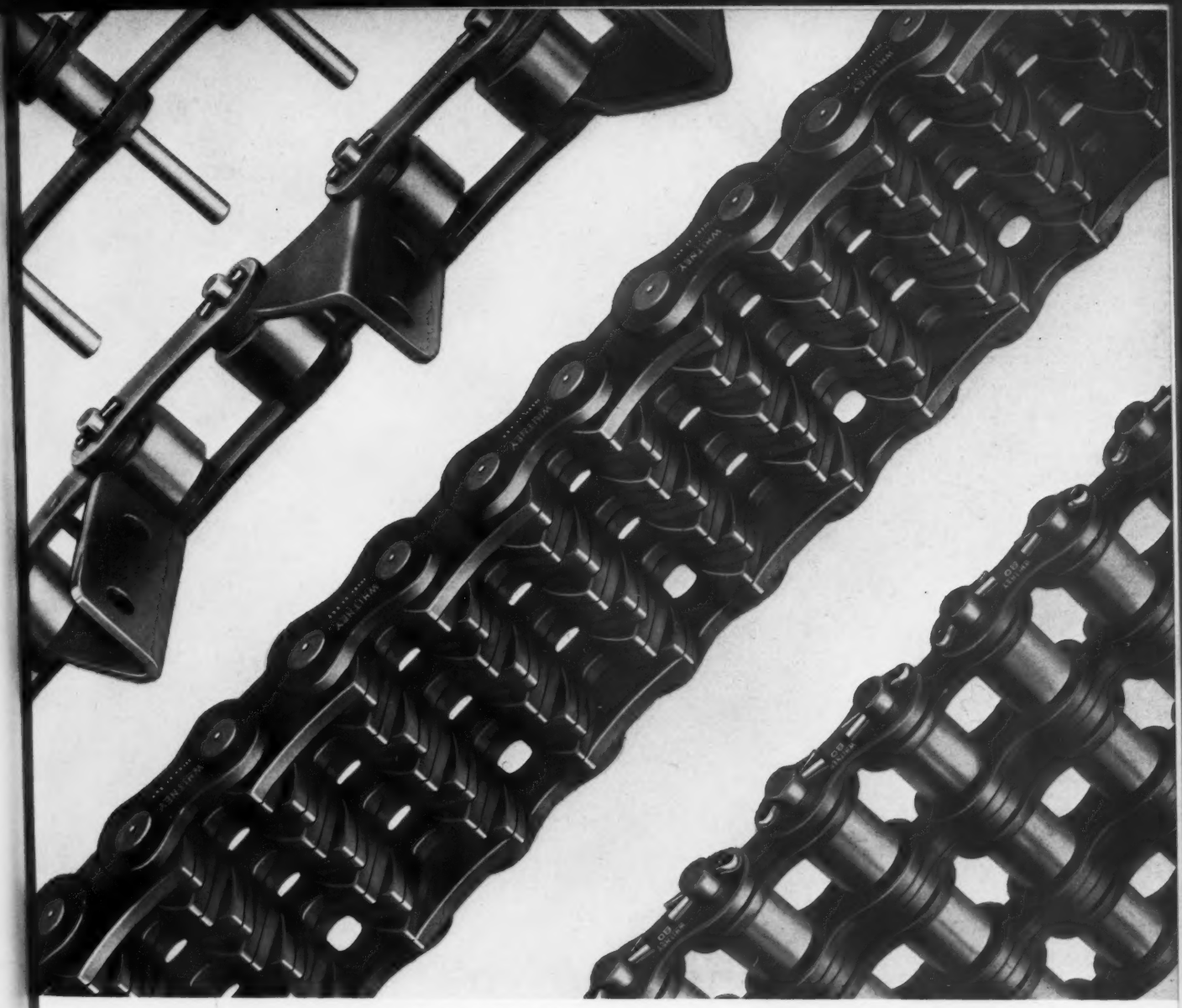


A CLOSE-UP of the chief products of The Whitney Chain and Manufacturing Company, Hartford

• In This Issue •

The Whitney Chain and Manufacturing Co. . . . Research Pays In Terms of Results
State College Offers Training In Business . . . Ouch!
Departments . . . Cartoons . . . Service Section

CONNECTICUT INDUSTRY

· JULY · 1938

T. A. D. JONES & CO., Inc.

NEW HAVEN, CONN. BRIDGEPORT, CONN.

NEW HAVEN TERMINAL

DISTRIBUTORS

BITUMINOUS COAL

INDUSTRIAL FUEL OIL

SERVING SOUTHERN AND WESTERN NEW ENGLAND

VIA

RAIL—WATER—TRUCKS

CONNECTICUT INDUSTRY

July 1938

VOLUME 16 NUMBER 7

L. M. BINGHAM, Editor

MANUFACTURERS' ASSOCIATION OF CONNECTICUT, INC.

Published monthly by the Manufacturers' Association of Connecticut, Inc., with executive offices at 50 Lewis Street, Hartford, Connecticut. Entered as second-class matter January 29, 1929, at the post office at Hartford, Connecticut, under the Act of March 3, 1870. As the official magazine of the Manufacturers' Association of Connecticut, Inc., it carries authoritative articles and notices concerning the Association activities. In all other respects the Association is not responsible for the contents and for the opinion of its writers. Subscription Rates: $4.00 for 3 years; one year, $1.50; 20¢ a copy. Subscribers should notify publisher promptly of changes in address. Advertising rates on application.

OFFICERS

E. KENT HUBBARD . . . *President*
JOHN H. GOSS . . . *Vice-President*
H. D. FAIRWEATHER . . . *Treasurer*
C. L. EYANSON . . *Sec. & Asst. Treas.*

BOARD OF DIRECTORS

P. E. BARTH	E. C. STEVENS
SUMNER SIMPSON	JAMES E. BRYAN
C. L. CAMPBELL	CHAS. A. SAXTON
F. R. HOADLEY	R. E. PRITCHARD
FREDERICK KELLER	EDWIN S. TODD
F. H. GRIFFITHS	EDWIN PUGSLEY
H. H. RAPP	HARRY MCLACHLAN
F. C. LUCE	GRAHAM H. ANTHONY

COMMITTEE CHAIRMEN

C. H. GRANGER
Workmen's Compensation
WILSON H. LEE . . . . *Agriculture*
W. H. PEASE . . . . . *Traffic*
F. S. CHASE . *Power and Waterways*
JOHN H. GOSS . . . . . *Research*
E. KENT HUBBARD . . . *Legislative*
F. S. CHASE . . *Highway Safety and Scenic Restoration*
JAMES E. BRYAN . . *Foreign Trade*
C. F. HOLLISTER *Finance and Taxation*

ADMINISTRATIVE STAFF

C. L. EYANSON
Assistant to the President
W. A. DOWER . *Industrial Secretary*
L. M. BINGHAM *Commercial Secretary*
N. W. FORD . . . *Traffic Manager*
A. C. HINE, JR. . *Foreign Trade Sec.*

DEPARTMENTAL STAFF

M. R. RAITES	R. M. ZUGER
R. C. JOHNSON	M. T. MONTGOMERY
K. M. EDGERTON	D. N. LOUCKS
A. M. MURPHY	J. I. ANGUS
A. D. MIGLIORA	M. E. HOGLUND

THE STATE'S FISCAL SITUATION

By E. KENT HUBBARD

In the three years of its operation, the yield of the Connecticut corporation business tax has been more than double the estimates at the time of its enactment in 1935. Thus, the manufacturing industries, which are the main contributors under this tax, have not only shouldered their share of the increased taxes which the Special State Tax Commission deemed necessary to restore a balanced budget, after several years of deficit financing, but they have actually carried twice the load intended for them. Yet, as we stand midway in the biennium, the State is having difficulty making ends meet. What is the answer?

One of the answers is that the General Assembly of 1935 scuttled most of the recommendations of the Special Tax Commission, except the parts that bore on business. Industry had consistently manifested an attitude of willingness to shoulder its share of any increased burden that might be necessary to balance the State budget and to care for emergency expenditures, provided all other elements of the tax-paying population accepted the proposals directed at them. But the temporary retail sales tax, which would have yielded enough to absorb current deficits and perhaps to liquidate some of the accumulated debt, was talked to death.

Now when legislative bodies shy away from the unpopular task of broadening the tax base, without at the same time pruning appropriations proportionately, it takes no fancy arithmetic to forecast fiscal difficulties. The 1937 session of the General Assembly, however, passed a government reorganization bill which centralizes fiscal responsibility and control in the hands of the Chief Executive, operating through a Department of Finance and Control, with a Budget Director. Under that scheme, the Governor has shown laudable determination to cut the pattern to the cloth; and faced with the prospect of decreased revenues, due to business conditions, he has put into effect a 10% reduction in departmental expenditures for the fiscal year just starting.

Two things can be done. The first is for all of us to accept, with what patience we can muster, the necessary results of budget curtailment. No government, federal, state or local, can effect a 10% budget cut without inconvenience to some of those who look to it for service. If we will weigh in the balance the merits of these inconveniences as against the benefits that will ultimately flow from a sound condition of the State Treasury, it may help us to be tolerant with the minimized services until the crisis has passed.

Secondly, the next General Assembly might well subject to critical scrutiny the loose talk, so plentiful in 1935, about the so-called "regressive"

(Continued on page 25)

FEDERAL AND STATE LEGISLATION

ON Thursday night, June 16, the gavel banged at five minutes past nine, closing out the third session of the 75th Congress—one filled with stormy debate almost from the start. The third session just ended, unless perchance it should be recalled after Fall elections to "do something" about the railroads, had by far more actual production than the first session which was impaled for many weeks in bitter debate over the Supreme Court reorganization bill. Likewise, this session had many disagreements between liberal and conservative wings of the Democratic party, accompanied with little readiness to follow Presidential direction with the completeness characteristic of the early days of the New Deal. However, after a New Deal victory in a primary election in Florida last May, the Administration regained much of its old control and power.

Major Works Completed

Wage-Hour Bill. This law revives, in more effective form, the controls that existed under the old NRA code prior to June, 1935, when such codes were destroyed by the Supreme Court. The same law revives, in more effective form, the prohibitions against employment in industry of children under sixteen years of age. Actually the law, with the Wagner Labor Relations Act and the wider powers given to the Federal Trade Commission within the past year, is virtually the old NRA.

Taxes. The Revenue Act of 1938 was an approach to businessmen's demands for change of the undistributed profits tax and the capital gains tax, leaving only a vestige of the undistributed profits tax to be paid by some 20 per cent of the small corporations earning over $25,000 a year. Details of this law are included in the "Explanatory Digest of the Revenue Act of 1938," mailed to Association members early in June.

Pump Priming. Toward the close, Congress authorized in H. J. Res. 679 expenditure of $3,573,000,000 for recovery relief purposes during the fiscal year beginning July 1.

Food and Drug. The Copeland Food and Drug Bill which broadens the original act for the regulation of foods and drug manufacturing and sales was also passed.

RFC Loan Amendment. In one of several acts designed to combat depression, Congress authorized the Reconstruction Finance Corporation to lend up to $1,400,000,000 to businessmen and to municipalities as its directors saw fit. The law permits the RFC to continue lending until July 1, 1939, removes the $500,000 limitation on the loan to any one borrower, and allows provision for repayment over an indefinite period. Instead of specifically requiring security to cover the loan, the law says that the loan must be "of such sound value, or so secured, as reasonably to assure retirement." The phraseology raised the question whether the RFC would make "character loans," but Jesse H. Jones, RFC chairman, said not.

Army and Navy Appropriations. The Vinson naval expansion bill (H. R. 9218) was approved and became Public Law No. 528, authorizing an increase in the size of the Navy by 20 percent. Educational munitions orders were also provided in H. R. 1846. The War Department was also authorized to spend $2,000,000 yearly for five years to acquaint manufacturers with technical developments of munitions. In all the Army received approximately $500,000,000 for the fiscal year starting July 1, 1938, and the Navy some $600,000,000 regular appropriation for the same period.

Stream Pollution. Representative Vinson's bill (H. R. 2711) was passed and sent to the President. It provides for creation of a Division of Water Pollution Control in the U. S. Public Health Service. Enforcement provisions embodied in sections 7c, 8 and 9 were deleted.

Federal Trade Commission. Senator Wheeler's bill (S. 1077) amending Federal Trade Commission Act was approved March 21 and made Public Law No. 447. It broadens powers of the FTC and makes dissemination of false or misleading advertising of foods, drugs, devices or cosmetics unlawful.

Robinson-Patman Act. The Robinson-Patman Act (anti-price discrimination) was amended by the Walter Bill (H. R. 8148) approved May 26 and now Public Law No. 550. It excludes sales to educational, labor and charitable institutions from jurisdiction of the Act if purchases made by these institutions are for their own use.

Trade Marks. Registration of collective trade marks by associations and business firms, was authorized by H. R. 9996, approved June 10 and made Public Law No. 586.

Bankruptcy. The first general revision of the Federal bankruptcy law made by the Chandler bill (H. R. 8046) was passed and sent to the President. The new law permits companies to take their debt burdens into Federal Courts in an effort to reach agreement with creditors, and also extends to persons with incomes of less than $3,600 per year the right to petition Federal Courts in reorganization proceedings.

Tariff. Administrative provisions of the Tariff Act of 1930 were broadened by the Doughton amendment (H. R. 8099).

Housing. Amendment was made to the National Housing Act by the Steagall Bill (H. R. 8730) approved February 3 and made a Public Law, No. 424. The amendment permits the government to insure 90 per cent of the mortgage of homes costing less than $6,000; extends the amortization period from 20 to 25 years on all less-than-$6,000 homes built before July 1, 1939, and fixes the mortgage insurance premium at ¼ of 1 per cent on $6,000 homes and ½ of 1 per cent on the remainder.

Aviation. A Federal Commission to promote expansion of civil aviation and promulgate new safety regulations was provided by the Civil Aeronautics Act of 1938 (S. 3845).

Highway Construction Aid. Federal aid for state highway construction was provided in the Cartwright Bill (H. R. 10140) and now Public Law No. 584. It provides for the expenditure of $349,500,000 during the 1940-41 fiscal years.

Over-the-Counter Stock Sales. The Maloney Bill (S. 3255) introduced by

(Continued on page 24)

THE WHITNEY CHAIN AND MANUFACTURING COMPANY

MANY honors have been credited to Colt's Patent Fire Arms Mfg. Company of Hartford. First its new armory built in 1854, housing some 1400 specially built machines, was the outstanding productive "wonder of the world" for a number of years after it was completed. Second, the honor goes to Colt's for demonstrating for the first time on a comparatively broad scale, mass production methods. Third, it has always been considered the most prolific "hatchery" of mechanical brains or industries. But to our knowledge, little or no reference has been made to the fact that one of today's leading producers of power transmission equipment—a Hartford company—was nurtured from the idea stage to a lusty fast growing company in a small section of Colt's.

That company was the Whitney Chain and Manufacturing Company, organized February 29, 1896, by Clarence E. Whitney, son of Amos Whitney, the co-founder and developer of Pratt & Whitney Company. One of the first acts of the company was to take over the small Woodruff Manufacturing Company then located in Colt's "West Armory." Following its original products—drill chucks and collets—the then Whitney Manufacturing Company produced the Woodruff Key, Whitney Hand Miller and Whitney Water Tool Grinder. Several types of bicycle chains were also added.

Nurtured to strength by increasingly large orders for chain from the growing bicycle industry, the company was ready to embrace every business advantage offered by the automobile industry from its infancy. The first call of the automobile industry to which the Whitney Company responded was for timing chains. With the advent of self starters and battery charging, the chain demand was further enhanced. Whitney chain was also considered "tops" for cam shafts and timing gears, judging from the increased quantity used by the automotive industry.

Within a comparatively few years by taking every advantage of the opportunities offered by the bicycle and automotive industries, Clarence Whitney's company had spread out from 4,000 square feet of space it occupied to "burst the bounds" of 30,000 feet—or all then available at Colt's. To provide for necessary expansion, the company purchased eight acres of land at the corner of Bartholomew Avenue and Hamilton Street where a large reinforced concrete plant was erected. With the subsequent addition of several buildings, the Whitney plants of today cover an area of about 250,000 square feet. As growth in the chain and sprocket end of the business expanded the machine lines were gradually discontinued.

WINTHROP Whitney, president The Whitney Chain & Mfg. Co.

Since the earliest bicycle days a continuous series of improvements have taken place both in the design and standardization of various types of chains. Today the principal types of chain produced at the Whitney Chain & Manufacturing Company are Roller Chain and Silent Chain for bicycles, automobiles, industrial machinery and conveyors.

The beginning of real growth in the industrial field may be said to have started about 1910. Since then applications of Whitney Roller and Silent Chain drives have been made on practically all types of machinery and equipment, including machine tools, textile machinery, printing machinery, wood working machinery, coal mining machinery and equipment such as industrial lifts and conveyors. Agricultural machinery such as tractors and harvesters also account for a large volume of industrial business.

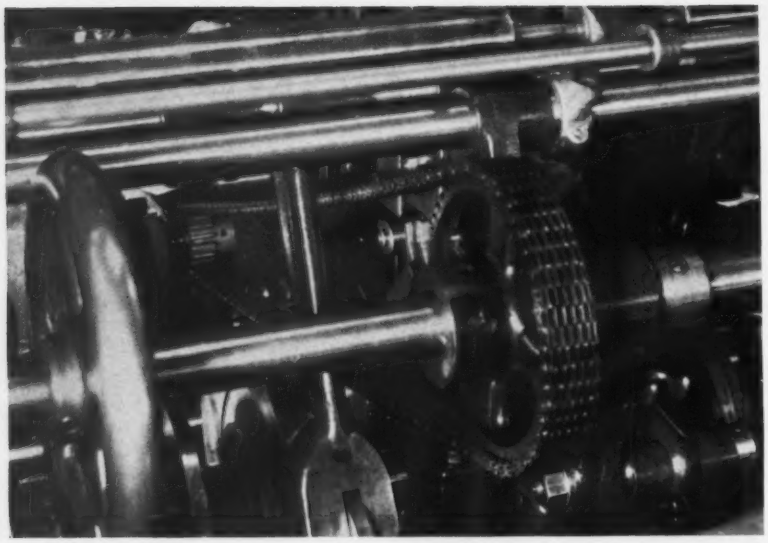
Like many other organizations, during the past few years of declining business on standard lines, the company has endeavored to develop or locate new products to "take up the slack" in the production line and increase sales. The most important result of this effort has been the development of Whitney All-Steel Conveyor Chains and Whitney Platform Conveyor Chains. These chains are unique in the conveyor field because they are built with much greater accuracy than ordinary conveyor chains and are therefore better adapted for use in intra-machine conveyors. Their outstanding advantage is a happy combination of light weight, strength and resistance to wear.

The platform conveyor chain is a further development of the same type of chains, adapted for bottle or can conveying. These chains are used for carrying containers during the operations of washing, filling, pasteurizing, labeling and capping, and have been accepted by the leading manufacturers of this type of equipment.

In the early days most automobiles used chains for the final drive. While this type has been superseded except in the case of the chain driven trucks, a further use was found for chains in driving camshafts, generators, oil pumps and other accessories on motors so that chains are today still an important factor in the automotive field.

In the Diesel engine field which has developed so rapidly in the last few years, Whitney chains were among the first used for camshaft and accessory drive, and an increasing number of manufacturers are using them today.

During the past few years increasing stress has been laid on experimental work in order to improve the product for both automotive and industrial use. A new experimental laboratory has been built with dynamometers for testing chains on motors, wear testing



WHITNEY Silent Chain Drive as used on textile machine.

machines, a sound-proof room for testing for noise and other facilities. The newer developments in alloy steels have also offered many possibilities for improving the quality and account for much of the success and reputation for dependability of the Whitney product.

This company was among the first to recognize the advantage of these newer materials in the manufacture of chains and has developed chains with unsual strength for applications requiring this characteristic.

The Genius Behind Whitney Success

Like any gasoline motor, human enterprise must have a "spark plug" and "generator" to provide the necessary starting impetus and to keep "things moving" once they are started.

Clarence E. Whitney was more than a "spark plug" and a "generator," he was a human dynamo of energy, not only in progressing his own company but many other projects which he believed of benefit to Hartford, the state of Connecticut and the nation. Born in Hartford, November 26, 1869, the son of Amos Whitney, Clarence E. Whitney was of pioneer stock that traces back through New England history for 300 years. He was educated in the Hartford public schools and afterwards attended the Massachusetts Institute of Technology. Upon the suggestion of his father, after completion of his third year at M. I. T., he went to Germany to study their production methods rather than to complete his engineering course.

After a year of work and study in German factories, mostly in Berlin and Essen, he returned to his father's factory, Pratt & Whitney Company, where he underwent a rigid apprentice training. With this unusually thorough education and practical training, Clarence Whitney rose rapidly from a lowly shop-hand at Pratt & Whitney's until he became his father's assistant. While working as his father's assistant, he had on offer to manage the then small Hyatt Roller Bearing plant in New Jersey. He refused because acceptance would take him away from Hartford. After some urging by others and serious thought on his own part, he decided to organize his own company to take over the small Woodruff Mfg. Company, then making in Colt's plant a half-moon type of key for fixing gears and pulleys to shafts, the invention of Wesley Woodruff.

Starting from scratch with little financial backing, and with many alleged doubts on the part of his father, his inborn sales and organizing ability soon came to light. His efforts, in short, were successful from the start and few manufacturing concerns ever developed more rapidly than the Whitney Mfg. Company.

Shortly after the Whitney Mfg. Company was deeply rooted "in success" Clarence Whitney formed with the late B. M. W. Hanson, the Hanson Whitney Machine Co. which produced machine tools, tape gauges and hobs, thus helping to set new standards and open the way to new products all over the world. Because of Mr. Whitney's personal fondness and admiration for the engineering genius of Mr. Hanson, he backed his inventions for years to the extent of some three quarters of a million dollars before a single profit dollar showed its face. Not once in all this expensive development work on Mr. Hanson's inventions did he order curtailment. That was the faith of the man. Once he "set his hand to the plow" there was no turning back. No lover of the limelight he did his telling work without the fanfare of rostrums or newspaper headlines.

Clarence E. Whitney assisted Eugene Atwood, in 1894, to organize what is now known as the Hartford Faience Company, and never relinquished his interest despite the almost continuous losses for many years. He was president of the company at the time of his death, January 22, 1933. He and his family were also among the largest stockholders of Gray Pay Station Telephone Co., thereby showing his faith backed by cash in another inventor.

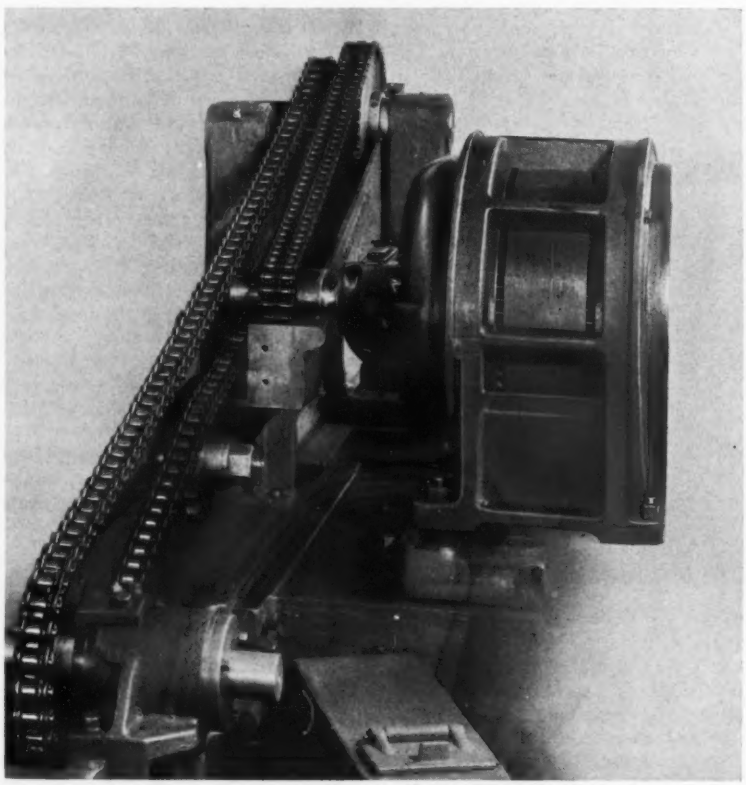
To give the full details of his many activities would be to tell the history of Hartford for 40 years prior to his death, for he was identified, always outside the shadow of the limelight, with practically every worthwhile movement of any magnitude occurring during those years. For instance, he was instrumental in having the Skayeff Ball Bearing Company locate in Hartford and was one of the chief mourners over its loss to the city. His loyalty to his friends, especially when they were in trouble, was forcibly demonstrated when the Riverside Bank, headed by his friend, the late Antonio Andretta, fell on evil days. Besides bending all his energies, with eventual success, he put up thousands of his own money to effect the reopening of the Riverside Bank. Noting a glaring need for new buildings at the Newington Home for Crippled Children, he personally solicited hundreds of his business friends and acquaintances, and with the aid he was able to enlist from the state, was successful in making another outstanding contribution to a worthy cause.

Known throughout Connecticut and the nation as the leading exponent of the "Open Shop" under which plan he believed the American work-

man would receive most in proportion to what he gave in service, Clarence E. Whitney was the founder of the "Open Shop Conference of Connecticut" and its principal supporter for many years.

Mr. Whitney's ingrained sense of democracy was demonstrated with telling effect during the World War. Any division he headed in Liberty Loan or Red Cross drives was always near the top at the close. Because the boys in the trenches were on duty 24 hours a day under severe hardship and continuous danger, he felt that it was the duty of factories "on this side" to run 24 hours a day, if necessary, to give the fighters every possible support. He therefore fought fearlessly every effort at curtailment of hours. The war program of the Whitney Mfg. Co. was so effectively outlined in a letter which he wrote that it was copied by newspapers and magazines throughout the nation, and considered by the government as the best exposition of its kind ever written. A few of the terse statements in his letter follow:

"Our working time until the war is over we desire to calculate as twenty-four hours a day . . . we consider it un-American to talk, think or recognize eight or any number of hours under twenty-four until each branch of industry can determine what will give the greatest degree of efficiency and the maximum of output, keeping within the law, . . . we are operating in a land of liberty engaged in a colossal conflict for the democracy of the world.



WHITNEY Roller Chain Drive as used on metal forming machine.

"We have no wage laws which apply to the army and the navy after eight hours, but they are confronted with death, gas poison, suffering, blindness, mental and physical deformity, cold, hunger, mud, rain, snow, vermin, disease and all 'round hell . . . if anyone in our employ undertakes to stop our war efficiency program by intimidation or otherwise he will be immediately discharged . . . until this war is over we are willing to operate at a profit, or at no profit, or at a loss, whichever may best serve our country and we object to advertising any propaganda for an eight-hour day when we know that it would mean ruin for our country . . . we hold that 60 percent of the citizens of this country are asleep at the switch and that it is about time they awakaned and realized that something has happened . . . this war will never be won on any jellyfish backbone platform."

We have only "scratched the surface" in our tale of Clarence E. Whitney's service to his beloved Hartford, his native state, the nation and to his myriad friends. His was a life of action "in the harness" to the last. He was never one to hoard securities but rather one to invest his dollars for the benefit of others. Almost invariably his business as well as his numerous outside activities was successful, perhaps not in his own estimation but at least generally accepted as such. From the outline of the man there is little wonder that success rewarded his company—The Whitney Chain and Manufacturing Company (changed from Whitney Mfg. Company in 1936).

The Future

After Mr. Whitney's death the reins of the business were taken over by Charles E. Wertman who for a number of years previous was employed by the company.

Upon Mr. Wertman's announcement of retirement on June 8, Winthrop Whitney, oldest son of Clarence E. Whitney was made president and treasurer. Mr. Whitney, who joined the Whitney Chain and Manufacturing Company shortly after his father's death, had been associated respectively with the Skayeff Ball Bearing Co., the Whitney Chain Co., the Automatic Signal Co., and the J. P. Stevens Company of New York, one of the nation's largest textile jobbers.

With his recent election and other changes in official personnel that have occurred during the past two years, all officers in the company are now 50 or under. The inheritance of a stable foundation, plus the stamina of youth at the helm, and with much actual and inherited experience, the Whitney Chain and Manufacturing Company should project its successful past into an enlarged success in the future.

The present officers of the company beside Winthrop Whitney are Robert E. Stevens, chairman of the board, Carl Gray, vice president and general manager and Park C. Boyd, secretary and assistant treasurer.

OUCH!

By J. ERNEST ANDREW
Vice President, Associated Spring Corp., Bristol, Conn.

Editor's Note. **This startling article, given practically in its entirety as a recent talk by Mr. Andrew before the New Haven Advertising Club, hits so many truth nails "on the head" that we secured his permission to let *Connecticut Industry* readers "in on" this tempting feast of fact.**

THE very title of this talk implies that your speaker is alarmed, but I hasten to assure you that such is not my usual custom. I am not overmuch given to arriving at a positive end through the avenue of a negative approach. But there are things that make us cry out in alarmed pain and I have found myself cringing and crying out, "Ouch" at certain implications that crop out in our modern life.

On the top of the list, in the sense that it is the newest cause of a soulful "Ouch," is the renewed, widespread acclaim that Congress should give business a break. Why should any segregated group in this country get a so-called "break"?

What is Industry Anyway?

What is business anyway? Is it segregated? Forgive me if I approach these questions from an industrial viewpoint. I am not unmindful of the vast importance of merchants, professional men, teachers, agriculturalists, transporters, bankers, etc., who contribute so mightily to the broad field of business. They are not being dismissed by any means but my life has been lived in an industrial pursuit and I am constricted to that angle by sheer force of mental limitations. So the question narrows down to—what is industry and what break does it deserve?

Is industry something so segregated from the public good that it can be treated as a distinct entity and be viewed much as a museum specimen? I think not. It is not industry that needs a break—it is the American Public. Industry brings us our tools. It dips its hand into a rust-colored pile of dirt up on the shores of the Great Lakes; it picks fluffs of cotton from the vines of the South; it taps rubber trees on far-off shores for their sap; it melts sand and rolls it into glass; it chops down trees, tans hides; mines copper, lead, zinc, tin, aluminum and in a surprisingly few weeks of time delivers to our door an automobile. It thumbs through the pages of history, discovers the arts of

J. Ernest Andrew

prehistoric peoples, evolves the cleverest of machines to weave cotton, wool, silk and the synthetic fibres into beautiful and useful clothes for our apparel. It protects us from wintry blasts, shields us from summer suns and adorns us for the public view.

It gives us paper, pen and ink to write speeches with. It produces typewriters for greater ease in communications. It makes rails and cars so cheaply that for two cents a mile we can be whisked in safety and comfort across the land. It builds vessels and aircraft that annihilate distance. It harnesses the invisible waves of the air so that we may have information and entertainment by our firesides through the radio. It puts roofs over our heads; heating units and atmosphere controllers in our basements; carpets on our floors; screens in our windows and a newspaper on our front porch.

And we hear "it" needs a break! When anything happens to this, our greatest servant, we are the ones who need "a break." Just now it's a sick servant. It is halt and lame. It no longer smoothly and efficiently serves us. It was so big and so able in its performance that we got into the habit of thinking that nothing could harm it, that we could add to its load taxes, strife and opprobrium ad infinitum and that it would go on and on in its mighty stride. Much like the time-worn story of the farmer who saw that corn meal and sawdust looked much alike and decided to feed his chickens the cheaper. All went well until the chickens up and died.

I am saying "Ouch" in loud, emphatic tones because industry is being treated as a separate class in our national economy instead of as the very warp and woof of our lives and because it is being fed the "sawdust of crackbrained philosophies" instead of the "solid corn meal" of profits.

How Necessary are Profits?

I know that a word in behalf of profits in these fanciful days is about as popular as the proverbial skunk at the Sunday school picnic, but I have another good healthy "Ouch" over the popular distrust of profits. To me, profits are like the breath we draw. If I suddenly began to choke and gasp for more air I imagine my neighbors would jump to their feet, slap me on the back and try in every conceivable way to restore my normal breathing. If, contrariwise, I began to get red in the face and pant with too rapid breathing they would lay me down and call for first aid to restore me to normalcy, regardless of whether they agree with the speech I am making or not.

Profits in business are much like that. There is a shortness that alarms and a superabundance that kills the patient anyway. If I had my way, I'd like to see every hamlet, village, town and city in this country discover the citizen in its community who had made the most honest profit (poker, Irish sweepstakes, etc., omitted) dur-

ing the past year and take a day off to hold a fiesta, erect a bronze tablet or unveil a statue in his or her honor. We need to restore honestly earned profit to an honorable seat in our midst. Make no mistake, this country is set up and tuned to do business on the profit basis, soap-box orators and coral pink haranguers notwithstanding. Our forefathers labored for it—our generation pines for it—our posterity will dream of it.

You can search this world over with a fine-toothed comb and a magnifying glass and you will find nothing so effective as the so-called profit motive to get things done for the public good. It sharpens the wits of the inventor; it turns the wheels of industry; it energizes the researcher; it puts clerks into our stores; it feeds our vast systems of transportation; it underlies our institutions; it supports our educational programs; it lures capital from its hiding places and flows it into our pay envelopes and essential bank accounts. It is the unquestioned American way of doing things. It has given us 50% of the world's telephones; 44 million savings bank accounts; 64 million life insured citizens; one radio to every six people and enough automobiles to take every man, woman and child in the United States to ride on a Sunday afternoon. No other nation on the face of the globe can come within telescopic distance of that record.

It is not profit that is wrong. It is our definition of it that needs tuning up. If we say "A profit! Yes, for me, my wife, my son John and his wife—we four and no more" then we make profit "a bad smell in the nostrils," create envy in our neighborhood and plant a cancerous growth in our national economy. If, however, we say "A profit! Yes, but you first, my dear Gaston," it becomes a sweet aroma; our neighborhood blossoms forth with good cheer and we will forget such impressive words as national economy in the abundance that will be showered upon us. When we get around to thinking of profit as something we *give* instead of something we *get* we will automatically solve our economic problems and the word "Ouch" will be on its way out of our dictionaries. "Seek ye every man another's profit" would make a grand national slogan right now and you need not paraphrase that to read "Seek ye *to get* every man another's profit" either.

What this country needs right now is not a good five cent cigar but a few more dyed-in-the-wool millionaires. To take a mean advantage of you and revert to statistics for a moment. A millionaire should have an income of fifty thousand dollars or more. The statistical abstract of the United States in 1929 reports 38,889 incomes of fifty thousand dollars or more; in 1934 (the last available statistics) the number had dropped to 8,000—almost one fifth. I am more serious than it sounds. I am losing no sleep because I do not belong in that bracket but no man can become an earned millionaire without putting a lot of other people into more or less affluence.

A million dollars may be the wrong yardstick. Use a thousand dollars, if you like, or if you know what it means and can comprehend its vastness, use a billion dollars—it will still speak the same language. It is said that we are short 300,000 homes in America. 28,000,000 motor cars are now registered in this country. "Boss" Kettering, research expert for General Motors, estimates 37,000,000 by 1960. Existing highways would then be inadequate so 50,000 to 60,000 miles of high speed arteries come into the picture with work for thousands of men in the offing. Between 1935 and 1937 the airplane industry doubled the number of its employees.

The annual sales of air conditioning equipment is estimated to be $85,000,000 at present and it is anticipated this will reach $350,000,000 by 1945. Chemistry seeks to wave its magic wand over our farms and unite them to our extended industries in astonishing values.

This is, at best, only a very restricted list of the things that await a healthier attitude toward profit. Profit to our millionaires? Yes, but profits too that are hungry to find their way into the pockets of our janitors, mechanics, school teachers, clerks and even our advertising men.

While we are under the spell of statistics, I think this means much—continuously from 1919 to 1934 inclusive (15 years) money put into capital issues shows these intriguing facts. Out of every dollar put into capital issues during the entire period approximately 84¢ went to new capital and 16¢ went into refunding issues—this average without a break in any year. In 1935 and 1936 we reversed ourselves and out of every dollar put into capital issues approximately 31¢ went into new capital and 69¢ into refunding issues. As I view this, we are fresh out of both appetite and money for new ventures. We are only one third as ready for the new and about four times as anxious to shift our money from one pocket to the other as we were and this calls for another hearty "Ouch" and an enthusiastic search for our missing millionaires.

To shift the scenes to another line of thinking—I call your attention to the pyramiding of laws on our statute books, the general ensuing confusion and their restrictions on industry. We have gone lazy. There used to be a time when we could sit down with our fellows and argue for what we conceived to be the right. There was a bit of moral virtue that cropped out now and then. Gradually we have found that our contacts with the rest of the human race could possibly be defined by those things we call laws. We have found that some laws are good and have jumped to the conclusion that if some are good more will be better.

Those Dog-goned Laws

Well, laws aren't so far removed from the case of overeating. We can and do have too many of the dog-goned things. Back in the halcyon days of the NRA I did a bit of calculating I tried to measure what would happen to me if I punched every NRA law right in the eye. I included every infraction that might befall me if I indulged in sweatshop practices or unethical dealings with our customers. I added the fines and imprisonments that would follow paying jobholders too little, employing them too long or turning a deaf ear at the wrong time. The total of fines stood at $612,500,000 and I would have languished in jail for 612,500 years. "Ouch," but it was an interesting straw man to build ne'ertheless.

The dickens of it is that every man, aided and abetted by the women, runs out and elects a new batch of lawmakers every chance he gets and those lawmakers can retain their jobs only by making a flock of new laws to keep our neighbors in harness. "A nickel bets a dollar" that none of us have gone to bat for a law to keep *ourselves* in the straight and narrow way.

For one, I am not blaming our lawmakers overmuch. Mostly it's your bills and mine that they try to enact into law. It is reported that last year 55,000 bills were presented in 43 states

(Continued on page 13)

Hartford Times Photos

PHOTOS of ten "Research Day" exhibits on display at Hotel Bond from May 19 to May 23. There were fourteen other exhibits of which no suitable photos are available. Above exhibits were made by companies as follows: 1. Underwood Elliott Fisher Company; 2. Royal Typewriter Co.; 3. The Bristol Co., Waterbury; 4. The Corley Company, New Britain; 5. The Wiremold Co., Hartford; 6. The Robertson Paper Box Co., Montville; 7. The Sessions Foundry Co., Bristol; 8. Silex Co., Hartford; 9. Raybestos Div., Raybestos-Manhattan Inc., Bridgeport; 10. Dictaphone Corporation, Bridgeport.

RESEARCH PAYS IN TERMS OF RESULTS

By **A. H. D'ARCAMBAL**
***Consulting Metallurgist*, Pratt & Whitney Div., Niles-Bement-Pond Co.**

Editor's Note. **The following is an address delivered by Mr. d'Arcambal at the Connecticut "Research Day" Dinner Conference at Hotel Bond, Friday evening, May 20. It is hoped that this and other articles to be published in future issues, will serve to promote the further application of research by Connecticut industry.**

AMERICAN Industrial Plants spend well over a hundred million dollars yearly for Research. The question has often been asked "Is this large expenditure warranted?" It is my pleasant duty this evening to answer this question in the affirmative by citing a few interesting examples proving conclusively that Research results in better quality products at lower manufacturing costs, develops new fields of application and introduces new products. This can only mean increased employment; all mankind benefiting by these gifts of Research.

The world owes much to General Electric, Westinghouse and American Tel. & Tel. for the advancement of civilization resulting from the contributions of their internationally known and highly respected Research Laboratories. Coolidge, Whitney and Langmuir, through their development of ductile tungsten filaments and their work on gas filled lamps, have saved consumers of electricity for lighting purposes over $2,000,000,000 yearly as compared with the cost of the same intensity illumination using the old carbon filament lamp. Dr. Coolidge's further contribution of doping the tungsten with thoria resulted in greatly increased life of the filament. Thoriated wire, moreover, offers one of the best sources of emission; consequently becoming of vital importance as filament material in radio tubes. Recent developments in illumination are the result of research in connection with vapor lamps and with lamps coated with phosphorescent or fluorescent materials. Other important contributions of the General Electric Research Laboratories include the Coolidge X-ray tube, high power, high vacuum tubes used by the large broadcasting stations, Thyraton tube for control purposes, such as in spot welding operations, the photo-electric cell and too many others to mention at this time—all truly a remarkable contribution to civilization.

The Research Department of Westinghouse Electric & Mfg. Co. also has made many notable contributions to industry during recent years. Intensive study of Electronics by the Research staff has played an important role in the development of our billion dollar radio industry with its attendant great increase in the employment figure. Incidentally, this study of electronics resulted in marked improvement in the design of circuit breakers and control devices. This work also led to the development of a new material called "Konel" for filaments instead of platinum, "Konel" being stronger and less expensive as well as lending itself much better for this work. Among other contributions by the Westinghouse Research Staff are Dust Precipitators, which work on the principle of charging dust particles and collecting same on a charged plate, Sterile Lamps, Balancing Machines and Electric Locomotive design.

The contributions of the Bell Telephone Research Laboratories undoubtedly are known to you all. You have only to compare our telephone facilities with any country in the world, realizing that our enviable position is possible only because of the work of the Research Staff consisting of 2,000 technicians to appreciate their contribution to civilization. It might be of interest at this time to repeat the statement made some time ago by a recognized authority relative to Thomas A. Edison's contribution to employment as a result of his research studies. The industries resulting directly from Edison's inventions have a capital value of some $25,000,000,000, employing 2,000,000 people.

It is interesting to compare the automobile of today with the product of only 15 to 20 years ago. Picture if you will a salesman attempting to sell you a car today with the former high unattractive body protected with an expensive paint job but not too durable, two-wheel brakes, no shock absorbers, the old style steering mechanism, no oil filter or air cleaner, an ignition system that took a rest after every rainstorm, large wheels with cord tires good for only a few thousand miles, no electric clock or radio, in short, gentlemen, a car that we all rushed to buy only a few years ago at a much higher price than the greatly improved automobile of today. Through intensive engineering research and constant study of materials, together with the employment of modern machine tools, cutting tools and gages, the automotive industry

A. H. d'Arcambal

has led all other industries by taking full advantage of technological advances.

An example of the savings effected through proper metallurgical control should be of interest. One of the larger manufacturers of automobiles some five years ago was experiencing trouble with its new model car due to axle shafts breaking after short service. The Engineering Department suggested increasing the diameter of the axle shaft. This meant increasing the size of the roller bearings as well as the differential gear, meaning a change in the differential pinion and ring gear, amounting to $1.95 increase per car for material and parts. The Metallurgical Department was then consulted. The company adopted their recommendation of changing to a special analysis steel having excellent physical properties when heat treated to a high Brinell hardness. The axles were machined from this material in the annealed condition instead of from heat treated alloy steel of over 300 Brinell formerly used, then hardened to a Brinell of 420-450 and finish ground. The entire heat treating equipment consisting of atmosphere controlled furnaces was installed in the machine line. The axle shaft failure was thus solved without changing the size of the shaft. The ultimate savings effected through the use of the less expensive steel, the marked speed-up in machining operations with longer tool life and retaining the size bearings and differential gearing formerly used, resulted in an annual saving of three-quarters of a million dollars. Research does pay dividends.

THE researcher and the individual or company who underwrite his cost are the modern trail blazers of progress.

The Research Director of one of our large automobile plants recently stated that the car of 1950 will be as superior to the present model as today's car is to the car of 15 years ago. Here's hoping that such present-day problems as headlight glare, high fuel expense, tires that blow out usually at a time and place least convenient, will be solved during the intervening years.

Millions of families today are enjoying electric refrigeration due to the attractive price of this modern household convenience, as well as its remarkably low operation and maintenance cost. The past 20 years of development in the electric refrigeration field has brought to the front an industry which has grown rapidly, employing many thousands of men. The first domestic electric refrigerator produced was a clumsy, cumbersome, inefficient, expensive machine comparable to the first motor car. The wooden cabinets were designed along the lines of the old ice box and poorly insulated. Marked progress was made in the elimination of the brine tank and water cooled condenser. The compressor has been re-designed into a small compact unit which contains the compressor and motor, hermetically sealed. The weight of the present-day unit is approximately one-third of the weight of the old style unit. This improvement in the design of the compressor, cabinet and controls has resulted in a quiet operating and efficient refrigerator vastly superior to that of only a few years ago, meeting a wide demand as a result of the attractive sales price due to low manufacturing costs. A visit to the Research Laboratories of the large electric refrigerator manufacturers will convince one that Research has played an important rôle in the development of this product.

A Research Laboratory is a necessity in plants manufacturing aircraft engines. This young and lusty industry has problems to combat which can be solved only through carefully planned Research procedure. Let me cite extracts from a letter recently received from an executive of a well known company manufacturing aircraft engines:

"The problem of attaining uniform velocity of air flow and distribution of fuel across the entire area in front of the supercharger impellers has been a troublesmoe one. The Research Department built special apparatus and constructed supercharger entrance elbows made of wood and modelling clay. By the use of these models, air was blown through the entrance elbows with a mixture of gasoline or colored fuel oil, and photographs taken, showing the mixture flow pattern at the same time as the velocity, were measured throughout the entire area, and by the development of the shape of the elbows and the introduction of curved vanes, very uniform patterns resulted. This development work, when applied to the actual engine supercharger, resulted in a very much better distribution of fuel and air to all cylinders with a consequent increase of power and reduction of fuel consumption.

Another involving a considerable amount of Research work had to do with the development of a means for measuring the actual horse power delivered to the propeller of an engine during flight. A device which is known as a torque meter was designed and developed which, when applied to engines during flight tests checked the experimental tests conducted in the dynamometer laboratory. This development has resulted in a device with which it is possible to accurately measure the power delivered to the propeller during flight at all altitudes and provides an accurate means for checking the theoretical altitude performance of engines based on corrections which had to be made previously for changes in density, temperature, etc., caused by variations in altitude. This development has proved of such practical value that some operators are considering installing it as standard equipment for certain types of service, whereas it was originally intended for development use only during performance trials of the various airplanes and engines.

Another interesting application of research to practical design has been in the study of air cooling cylinders. By means of laboratory equipment, sample cylinders with variations in cooling fin depth and spacing were set up in a wind tunnel, artificially heated and the amount of heat rejection to the air was measured electrically. It was possible through this research work to select the cylinder design which would cool best with the minimum air flow over the cooling fins and at the

same time arrive at the best compromise between maximum cooling and minimum weight. In a similar manner, suitable cylinder air deflectors were developed. This development resulted in a reduction in cylinder temperatures, at the same time reducing the overall drag of the power plant.

A still further line of research which has resulted in a considerable improvement to the product has been in the matter of bearing development. Special bearing test machines have been constructed through the use of which it is possible to study the characteristics of various bearing materials such as sensitivity to seizure with scanty lubrication, sensitivity to dirt in the lubricant, maximum load carrying capacity, and the effect of rubbing velocities with regard to varying capacities. This research work has made it possible to reduce the amount of expensive development testing in actual engines without the risk of damaging costly materials. The actual experience, when the lessons learned by these tests were applied to the product, has agreed quite closely with the predictions made as a result of the research which had been conducted on the test machines.

This same general application of research to experimental development work is carried out in the case of practically every major development problem which we undertake, and development research of this general character, if thoroughly planned beforehand, can be of very considerable value in shortening the development period for a given article.

Research projects carried on by the Metallurgical Staff of the Aircraft manufacturer also are of vital importance to the success of the product. Extreme care must be exercised in the selection and inspection of raw materials. Careful supervision of the heat treating, testing and inspecting of finished parts insure reliable performance. Important engine parts must have highly polished or lapped surfaces, grinding marks if too deep being a cause of failure. The magnaflux test reveals defects in finished parts not visible to the eye. These facts are mentioned merely to show the importance of maintaining a high standard of quality in this industry. The Research men in our aircraft plants are in a large manner responsible for the enviable reputation enjoyed by American manufacturers of engines, propellers and planes.

Companies manufacturing business machines learned years ago that Research pays real dividends. The advancement in the design and increased efficiency of such office equipment as typewriters, adding and computing machines, tabulators, cash registers, bookkeeping machines and the like, would not have been possible without the contributions of the research laboratory. Your speaker recently witnessed a printing press developed by one of our well known companies specializing in business machines, printing 1,000 cards a minute. Samples of these printed cards are included in this display. The technical research department of this nationally known company is composed of four distinct yet interdependent divisions: —the Chemical Laboratory, the Metallurgical Laboratory, the Paper Laboratory and Electrical Laboratory. The display board on exhibit loaned the speaker by this manufacturer shows the savings effected by cadmium plating beryllium copper sheets used for plugboard parts. The die life was increased from 15,000 pieces on beryllium copper sheets not plated to 160,000 pieces from sheets cadmium plated before fabrication. This increased die life meant the saving of an investment of $8,000 in two special four slide presses as well as the savings in tools. The cadmium is easily removable from the finished part.

The die striping process used in connection with the manufacture of tabulating cards has resulted in a reduction of well over 90% of complaints on warp and curl. Through intensive research it was found possible to successfully butt weld 1/32" diameter music wire to 1/32" flat .95 carbon steel, heat treating the weld to eliminate brittleness. Samples of this part known as the pull wire assembly are included in this display. This accomplishment resulted in a marked savings in manufacturing costs considering that close to a hundred of these parts are used in a machine.

The splendid products now manufactured in our Government Arsenals owe much to the research staff maintained by these arsenals. One that might appeal is the method now used for making gun tubes by the centrifugal casting process. The old method of forging and boring required much more time and more metal, producing a product much inferior to the guns made by the modern and efficient centrifugal process. More than that, should we have to forge gun tubes during a national emergency, a large percentage of this country's forge shop capacity would have to be devoted to this work, whereas now a few centrifugal castings plants could supply our most extravagant needs. The development of welding for gun carriages permits around a 33% saving in weight, lowers cost and gives better construction.

Dr. Lester of Watertown Arsenal has truthfully stated that the products of Research are not purchased cheaply in terms of initial financial outlay. Much patience, much mental as well as physical effort are involved. In the end, however, there evolve results that more than justify the cost. Attention is now being concentrated on improving the steel for our guns and armor plate, satisfactory progress being reported.

The Development and Research Department of the International Nickel Company devotes its attention to improving existing alloys, as well as developing new Nickel bearing alloys, its many splendid contributions being widely recognized. Ni-Hard, a sand cast white iron or chilled cast iron carrying 4.00% to 6.00% nickel and 1.50% to 2.00% chromium, has a Brinell hardness range of 650-725, is some 50% tougher and stronger than ordinary white iron and possesses high resistance to wear and abrasion. Ni-Hard scratches glass easily. Due to its great wear resistance it is widely used for parts that must have a high resistance to wear and abrasion. A few applications are: Roll Heads in the cement industry; in the Ceramic industry such parts as muller tires, liner plates, plows, plug mill knives and screen plates now are generally made from Ni-Hard due to its marked resistance to abrasion. The coal and coke industry use this material for many parts where high resistance to wear is desired. The foundry industry uses Ni-Hard extensively for sand blast equipment parts, as well as in sand mixer construction. The same statement applies to the Mining Industry.

Ni-Resist, a corrosion and heat resistant nickel-copper-chromium cast iron is a development of recent years. Its application is useful wherever corrosion resistance or resistance to moderately elevated temperatures is required. It is made into such castings as pipe, valve fittings, pumps, compressors, marine castings, stove and furnace parts, oil burners, glass rolls, etc. Being non-magnetic, it is especially suitable for such parts as trans-

former bushings, magneto rotors, welding machine parts, resistance grids, etc.

Nickel Clad Steel Plate is steel plate protected on one side with a light layer of pure Nickel permanently bonded to it. Usually the Nickel layer is only 10% of the total plate thickness but the percentage may be varied either way if desirable. Samples of 10% and 20% Cladding are here exhibited, together with a twisted speciment of Nickel Clad Steel showing the permanence of the bond between the nickel and steel. This economical corrosion resisting material, which can be hot or cold worked and easily welded, finds wide use in the chemical and allied industries for tanks, kettles, mixers, retorts, stills and the like. Stainless Steel clad sheets also are now available.

Alnico, a product of the General Electric Research Laboratory, is a cast ferrous alloy containing appreciable percentages of aluminum, nickel and cobalt, only a trace of carbon being present. This material is used for the construction of permanent magnets, as this precipitation hardening alloy possesses excellent permanent magnet properties, greatly superior to chromium, tungsten and cobalt magnet steels commonly used. Magnets made of Alnico can lift up to 60 times their own weight. Many small motors and various control devices hitherto operated by electro magnets can now be constructed around this permanent magnet at considerable savings in cost and simplification of construction. One of the well known machine tool builders is manufacturing magnetic chucks from Alnico with marked success.

A few of our Universities are doing splendid work in connection with research projects sponsored by interested Industrialists. The Department of Engineering Research of the University of Michigan, which is headed by Dr. Albert E. White, has handled 1200 projects during the past few years, the expenditures in connection with this work amounted to over two million dollars. Question any manufacturer who has submitted problems to the University of Michigan Research Department and he surely will tell you that the investment has been returned many times over. A few of the outstanding contributions are as follows:—

The development of a new type of single phase motor used for fans, electric refrigerators and similar applications for which there is a potential demand for at least 100,000,000 units. The development of steels for high temperature purposes is now finding wide use in the petroleum industry, as well as the power field. In the Acoustic field, Dr. White is the authority for the statement that more work has been done in Acoustics at the University of Michigan than at any other place in the Country, other than the Bell Telephone Laboratories. Other projects include Stream Lining, Ventilation, Plating, Welding, Building Foundations, to mention just a few.

The company represented by your speaker owes whatever success and reputation it has enjoyed for more than a generation to its strict adherence to the high standard of quality first demanded of its products by the founders, Francis Pratt and Amos Whitney. The Engineering and Metallurgical Research Laboratories have contributed their share in maintaining this high quality now expected of the products bearing the company's name. It should be of interest to briefly mention one or two products where Research has played an all-important rôle:

Some 20 years ago our company decided to manufacture precision gage blocks considering that the only blocks available at that time were imported from Sweden. When one realizes that precision gage blocks must have the highest degree of hardness obtainable from alloy tool steel, must be flat and parallel within five millionths of an inch and accurate for length within a few millionths of an inch, and be stable, it is not difficult to picture the Research Work that was necessary to successfully manufacture these blocks on a commercial basis. The investment in connection with special grinding and lapping equipment, temperature and humidity controlled laboratories, development of proper measuring equipment, ran close to half a million dollars. Considering that the Hoke precision gage block today is recognized as the last word in accuracy and is the master standard of our American Industrial Plants, more than compensates for the expense and headaches involved in the development of this product.

Some five years ago the General Electric Company obtained a patent on the Electrolimit Gage, this being a mechanical gage with electrical magnification, using the balanced bridge circuit. The manufacturing rights were turned over to our company and as a result of intensive research these electrolimit comparators, capable of measuring to millionths of an inch, now are widely used by industry for both external and internal measurements. The same principle of gaging also is used in connection with continuous electrolimit gages for measuring the thickness of cold rolled strip sheets and tin plate as the material comes from the mill. This method of continuous gaging sheets has revolutionized the cold mill industry considering that the steel sheets and strips can now be rolled at speeds up to 1500 ft. per minute, compared with a maximum of 300 to 400 ft. per minute on mills not equipped with continuous electrolimit gages. The use of these efficient gages also enables the operator to hold the thickness of the sheets to a much closer tolerance than is the case when merely hand miking the moving strip with resultant inaccuracy of readings and attendant danger to the operator.

The Pratt & Whitney electrolimit strain gage is a comparatively recent, yet a thoroughly tried and proved development for indicating and recording rolling pressures. It is a practical and extremely accurate instrument, and is readily applied to all types of mills. The principle of the Electrolimit strain gage is based on the recognized fact that as pressure is exerted on the mill by the screw down, the housing of the mill will stretch in a relation which is directly proportional to the pressure. This stretch is measured and then converted, so that the pressure may be read directly in pounds on indicating and recording instruments. Through the use of this, strain gage overloading, with resultant disastrous and expensive failure of equipment is prevented.

Research truly leads the way to the more abundant life mentioned so frequently during recent years. May this first New England Research Day result in thousands of our New England citizens becoming somewhat more Research conscious, thoroughly appreciating the fact that "Research does pay in terms of Results."

STATE COLLEGE OFFERS TRAINING IN BUSINESS ADMINISTRATION

By PROFESSOR I. G. DAVIS

Head, Department of Economics, Connecticut State College, Storrs, Connecticut

IT may be of interest to manufacturers in Connecticut to learn that Connecticut State College is reorganizing and rehabilitating its work in engineering in connection with the newly authorized engineering building to be constructed on the campus of that institution. The College is also supplementing its enlarged facilities for instruction in engineering by the development of courses relating to business administration, personnel management and other specialized fields for young men and women proposing to enter industry.

The new course in business administration, while not highly specialized in character, nevertheless affords to students wishing to study in this field the essential rudiments of training that are necessary and gives an opportunity for some specialization particularly along the lines of accountancy, industrial management, personnel administration, and corporation finance. The completion of this group of courses in their present form is the result of a long period of development culminating in the approval by the Board of Trustees of the College in the spring of 1936 of "the establishment of a curriculum in business and commerce as an administrative unit in the Department of Economics."

That this step should help meet an important need of the State is indicated by President Jorgensen when he says: "A large proportion of the population of this State finds its employment and income in industry, business, insurance, and other related fields. It is obvious that the State College can be of great service to the State by preparing young men and women for citizenship and for entrance into these lines of endeavor. The turning out of men imbued with the principles of business success, equipped with a knowledge of sound civic and social policy, and prepared to serve both business and society intelligently and efficiently is the object of this curriculum."

The Economics Department has been making steady progress for more than a decade in building up its offerings in general economics and giving some attention to business. In the spring of 1936 when the Board of Trustees adopted its resolution, the Department of Economics was offering general courses in economics, money and banking, public finance, transportation, statistics, accounting, and a few scattering courses in the field of business. Attracted by these offerings, approximately 60 students were majoring in the Department of Economics, a considerable portion of whom were desirous of securing a business education.

The instruction in industrial management, personnel administration and business statistics is being conducted by Mr. Robert D. Gray who has been added to the staff of Connecticut State College coming from the Wharton School of the University of Pennsylvania where he was a research associate working in the field of industrial research and was assisting Dean Willets in teaching courses in industrial policy. Mr. Gray is now devoting a part of his time to a narrowing of the gap between industry and the College. To this end he is visiting industrial firms in various parts of the state and attempting to become acquainted with their problems both for the purpose of adapting his instruction to the problems which exist in Connecticut industry and also for the purpose of obtaining Connecticut material which is to be used in his instruction. He is interested in finding out what sorts of men and what kinds of college training Connecticut industry wishes to secure in its college trained men.

It must not be thought that Connecticut State College is embarking on any program of giving vocational training in the problems of industrial management, personnel administration and similar fields. As a matter of fact not more than ten percent of a student's time in college is likely to be devoted to courses of this kind. In general the purposes of a college education at the Connecticut State College remain what they always have been, namely, to give the youth of this state a broad and sound training along those lines which function to make these young men better men, better citizens, and, incidentally, more productive individuals.

★ ★ ★

OUCH!

(Continued from Page 7)

and, to the everlasting credit of our state legislative bodies, only 17,194 became laws. The legislators passed 18,439 and the governors vetoed 1,245. Contrast the agonized "Ouch" that groans forth from a consideration of that score with the majestic calmness that comes over us when we turn back some two thousand years to the words of an educated scholar of that day and read "Love, joy, peace, longsuffering, gentleness, goodness, faith, meekness, temperance—against such there is no law." I owe you the profound congratulations that a man from your own profession, now a Congressman in Washington, is imbued with a desire for less laws. My hat is off to Mr. Bruce Barton.

I repeat that I do not overmuch blame the Congress for this condition. We must recall that a copious flood of rulings that have the effect of law comes from our thriving bureaucracy. To illustrate: On February 25, 1913, we citizens of the United States adopted the Sixteenth Amendment into our Constitution, authorizing the taxing of incomes. It took just thirty words to express our wishes. Then came the Congress from whom in turn sprang the Federal Income Tax Commission. According to Prentice-Hall, it now takes approximately 54,000 paragraphs, each containing or explaining some rule with the effect of law, to cover what you and I authorized with thirty words. "Ouch" and double "Ouch."

Please do not rate your speaker as a hater of laws. I have the most profound respect for the laws that made us a nation to be envied. I cringe at

(Continued on page 24)

SERVICES AT YOUR DOOR

An alphabetical list of accessible services recommended to Connecticut Industry readers

DAN R. CAMPBELL

Distributor

Fire and Safety Appliances and Dugas Dry Compound Apparatus

Stamford Tel. 3-4162

Rates for this space exceptionally low

COAL

T. A. D. JONES & CO., INC.

24 hour service to Connecticut Industries

New Haven — Bridgeport

Ask about rates for one or more of these spaces.

DIESEL ENGINES

WOLVERINE MOTOR WORKS, INC.

6 Union Ave. Bridgeport

ENGRAVERS

DOWD, WYLLIE & OLSON

Advertising Art & Photo Engraving

106 Ann St. Hartford

CURTIS 1000 INC.

"Good Envelopes Plus Ideas"

342 Capitol Ave. Hartford, Conn.

Phone 2-1125

FENCING

THE JOHN P. SMITH CO.

Distributors for Page fence. Manufacturers of Wire Cloth,

433 Chapel St. New Haven

Ask about rates for one or more of these spaces.

THE HENRY SOUTHER ENGINEERING CO.

Engineering & Chemical Service

Research Facilities for Industry

Hartford, Conn.

Ask about rates for one or more of these spaces.

WOODWORK

C. H. DRESSER & SON, INC.

Factory—Cabinet—Special Woodwork of All Kinds

287 Sheldon St. Hartford

. . . Listing

Copy for listing in this department must be received by the 15th of the month for publication in the succeeding month's issue. We reserve the right to refuse any listing.

INSURANCE

AMERICAN MUTUAL LIABILITY INS. CO.

Workmen's Compensation Ins.

Boston - Bridgeport - Hartford

PLATERS SUPPLIES—CHEMICALS

APOTHECARIES HALL COMPANY

Established 1849

WATERBURY, CONN.

Rates for this space exceptionally low

PRINTERS

THE CASE, LOCKWOOD & BRAINARD CO.

Printers and Binders

Trumbull St., Hartford

RECORDING INSTRUMENTS

THE BRISTOL COMPANY

Recording and Controlling Instruments

Waterbury - Connecticut

TRANSPORTATION

AMERICAN-HAWAIIAN STEAMSHIP CO.

Coast-to-Coast Freight Service

New York — Boston

McCARTHY FREIGHT SYSTEM

An outstanding motor freight service in New England

General Offices Taunton, Mass.

DOLLAR STEAMSHIP LINES, INC., LTD.

Inter-coastal—Far-East and Mediterranean freight steamer Service

New York Boston

Ask about rates for one or more of these spaces.

NEWS FORUM

Coe Heads Brass Mill Group. John A. Coe, president of the American Brass Company, Waterbury, was recently made president of the Copper and Brass Mill Products Association at its annual meeting held in New York late in May.

★ ★ ★

Account Numbers Required for Summer Jobs. Summer jobs, even on a part-time or temporary basis, require Social Security Account numbers, according to Francis J. C. Donohue, manager of the Hartford field office of the Social Security Board.

Among the seasonal lines of work covered by the old-age insurance program requiring Social Security account numbers, Mr. Donohue listed roadside stands, tourist camps, boys' and girls' summer camps operated for private profit, boathouses, hotels, amusement parks, bathing resorts and other business enterprises having one or more employees.

★ ★ ★

New Velvet Company Organized in Mystic. The J. Rossie Velvet Company, headed by John Rossie of Mystic, and formerly connected for many years with the Rossie Velvet Company, was recently incorporated at an authorized capital of 3,000 shares of $100 each par value. The company is now soliciting stock subscriptions, hoping to start business with $100,000 of paid-in capital including the value of machinery which has already been purchased. The newly formed company will occupy about one-third of the plant of its predecessor in Mystic in the manufacture of first quality dress velvets similar to that produced by the old Rossie Velvet Company.

Employment is expected to range from 100 to 150 persons. Since no stockholders' meeting was held prior to going to press with this issue, officers have not yet been elected.

★ ★ ★

France Buys Rights to P. & W. Motors. Patents covering the Pratt & Whitney Twin Wasp and Twin Hornet airplane motors have been purchased by the French Government, according to a recent International News Service despatch.

According to the French Minister of Aviation Guy la Chambre, French

military aviation has been handicapped by faulty motors. With Pratt & Whitney motors the average speed and reliability of pursuit and bombing planes will be increased considerably.

The French will start manufacture of the Twin Wasp Motors immediately, accordnig to the despatch.

★ ★ ★

Hartford County Association Holds Annual Meeting. The Manufacturers' Association of Hartford County held its annual meeting at the Farmington Country Club, Thursday evening, June 9. Dr. Alan A. Stockdale, head of the speakers' bureau of the National Association of Manufacturers, delivered an inspirational message of good cheer to members of the Association.

Interspersing his address, which was broadcast over station WTHT, with a dozen amusing anecdotes, Dr. Stockdale said a sense of humor is a primary essential for the American business man in times such as these. With this precious quality, he said, the business man can more easily face and surmount the difficulties of a depression.

Graham H. Anthony, president of Veeder-Root, Inc., was elected president of the Association for the third consecutive term, and all other officers and managers were reelected.

In his annual report, Mr. Anthony commented on the Association's cooperation with the National Association of Manufacturers and referred to the reelection of Clayton R. Burt and Fuller F. Barnes as directors of the NAM. He pointed out that 40 members of the local association participated in the Congress of American Industry last December, and that he and Mr. Barnes served on the resolutions committee. He also pointed out that Mr. Barnes has served as state chairman of the Industrial Information Bureau of the NAM, and that Sidney E. Cornelius, manager of the local association, was reappointed a member of the NAM legislative advisory committee.

In commenting on the association's banquet for "old timers" in April, Mr. Anthony said that many inquiries from other Associations had been received, requesting further details. He also reported that the National Association of Manufacturers was sending to the National Press Service a story of the Hartford "old timers" meeting

Bouquet of Orchids

". . . A job like the Fruit of the Loom job always gives me a thrill. When I say it is the best job I have seen in thirty-five years (process printing, on regular stock that is used every day in the box business), I mean it is the best job I've ever seen, as that is the time I have been in the printing business. I congratulate you."

JOHN W. POWER
The International Printing Ink Corp.

Would you like to see samples in colors?

ROBERTSON PAPER BOX COMPANY
MONTVILLE, CONN.
NEW YORK OFFICE
420 LEXINGTON AVENUE

and one to 5000 American newspapers.

★ ★ ★

State Chamber Holds Annual Meeting. Nearly 500 prominent citizens of Connecticut representing all sections of the state, attended the 39th annual meeting of the Connecticut Chamber of Commerce, held in the ballroom of the Hotel Bond, Thursday evening, June 26. Some two score men assembled on the 10th floor of the Bond for a half hour reception prior to the meeting, filed into the flag-bedecked ballroom to take their seats at the head table to the tune of "Hail to the Chief" played by two trumpeters from the 2nd Company, Governor's Foot Guard, New Haven.

The chief speaker of the evening was Dr. Charles Reynolds Brown of Yale. Others who spoke included Governor Cross; Thomas G. Fraser, representing Mayor Spellacy; and Albert E. Lavery, president of the Chamber who acted as toastmaster. Entertainment was furnished by 50 members of the Mendelssohn Male Chorus of Waterbury and by Anita Brookfield, harpist.

The Chamber honored the Governor by printing and distributing 500 souvenir programs containing his entire collection of Thanksgiving proclamations.

Officers reelected at a meeting of the Board of Directors previous to the 39th annual banquet were: President, Alberty E. Lavery of Fairfield; vice presidents, John B. Byrne of Hartford and Nelson W. Pickering of Ansonia; treasurer, R. LaMotte Russell of Manchester, and executive vice president and secretary, Fred W. Orr. New directors were elected as follows: Samuel Ludlow, Jr., Central Reinsurance Bureau, Hartford, and Winthrop H. Whitney, president of Whitney Chain & Manufacturing Company, Hartford. Other general and all group directors were reelected.

★ ★ ★

Hartford Launches Business Action Program. Armed with nearly 1500 suggestions made during the last week in May at 20 "business clinics" held at the Hotel Bond, the "business action" program of the Hartford Chamber of Commerce was launched early in June with an intensive two-weeks drive to raise the $70,000, the estimated required to carry out the Chamber's 12-point program. The program is designed to assist Hartford to pull itself out of a "fear-born slump" and back to normal industrial and commercial activity.

Clayton R. Burt, president of Niles-Bement-Pond Company and general chairman of the movement, named division heads as follows: Lester E. Shippee, vice-president of the Hartford-Connecticut Trust Company in charge of Division A, which is soliciting the city's larger concerns; Burton W. Bartlett, treasurer of the Bartlett-Brainard Company, head of Division B which sought the support of national firms with offices located in Hartford; Samuel Ludlow, Jr., manager of the Reinsurance Central Bureau, head of Division C which contacted smaller business and professional men for subscriptions not exceeding $100.

There are in all, including chairman and workers, more than 100 business men "in the fray" telling the story of the "business action" program of the Chamber to all business segments of the city in terms of "investment."

As we go to press, more than $35,000 has been pledged of the $70,000 objective.

★ ★ ★

Anthony Named NAM Director. Graham H. Anthony, president of Veeder-Root Inc., and recently elected president of the Manufacturers' Association of Hartford County for the third consecutive term, has just been made a director of the National Association of Manufacturers. Mr. Anthony is the third representative from this section to join the board of the National Association, the others being Clayton R. Burt, president of Niles-Bement-Pond, and Fuller F. Barnes, president of Associated Springs Corporation, Bristol.

Torrington Company Honors Forged Checks. The Torrington Company whose pay checks had been forged in May in the amount of $2500, issued a statement recently, announcing that merchants and others who had cashed these fraudulent checks would be paid by the company the amount of their losses, de-

spite the fact that no insurance was carried on this type of loss. The company statement said in part:

"While the company is so advised and feels that it is under no legal obligation to those who have cashed its forged pay roll checks, it does appreciate the cooperation that the merchants have rendered its employees in cashing their checks. The company therefore in consideration of this service deplores any loss suffered by the merchants and has decided to honor these present forged checks with the understanding that it is not establishing a precedent to be followed in the future."

The statement also warned merchants hereafter to cash such checks only where the persons presenting them are known.

★ ★ ★

Veeder-Root Votes Extra Dividend. Directors of Veeder-Root Inc., recently declared the regular quarterly dividend of 25 cents a share and an extra dividend of 25 cents, making both payable June 15 on stock of record June 1. A statement of earnings for the first 20 weeks of 1938 was mailed to stockholders with the dividend check.

★ ★ ★

Cheney Brothers Sign Wage-Hour Peace Pact. The management of Cheney Brothers renewed an agreement with its employees on May 26 calling for a $15.00 a week minimum wage which bars strikes and lock-outs. The agreement also contains a section for the adjustment of grievances, maintenance of wage rates and a provision for arbitration rather than strife as a means of settling any differences which may arise.

Signers for the Textile Workers Organizing Committee were Frank J. Manning, New England regional director; J. William Belanger, state director; Clarence Lupien, president of Local 63; Robert Richardson and Frank Reilly. Signing for the company was Ward Cheney, president. Approximately 1600 employees were said to be affected.

The new contract will be in effect on July 1, 1939.

★ ★ ★

Niles-Bement-Pond Net Around $100,000. The net profit of Niles-Bement-Pond Company with head offices at Hartford, was roughly around $100,000 in April, bringing the total for the first 4 months of 1938 to approximately $400,000, or $2.30 a share on the 173,025 shares of capital stock. This compares with about $539,000 or $3.10 a share in the first 4 months of 1937.

The backlog of orders is being reduced in line with curtailment in new business.

From the current rate of shipments it is indicated that net income for the first six months of 1938 will be in the neighborhood of $500,000 or a little less than $3.00 a share on the capital stock. Recent bookings have been coming in from a wide range of domestic customers. Foreign business is said to be holding up fairly well. Individual orders are small, however, and are at a rate somewhat behind shipments.

Those close to the company feel that the research and engineering development work done in recent years is responsible in no small measure for the relatively good sales showing of the company.

THE POCKETBOOK of KNOWLEDGE
BY TOPPS
OSTRICH EGGS ARE UTILIZED AS FOOD IN "OSTRICH COUNTRY." AND NO WONDER!.... JUST ONE OSTRICH EGG MAKES AS MUCH FOOD AS TWO DOZEN ORDINARY HEN'S EGGS!
IN 1937 OVER 22,400,000 OUT OF A TOTAL OF 25,000,000 AMERICAN DWELLINGS WERE LIGHTED WITH ELECTRICITY— ANOTHER EVIDENCE OF AMERICA'S HIGH LIVING STANDARDS.
THE PERFECT CAR FOR THE BACK-SEAT DRIVER.
THE ROCHET-SCHNEIDER AUTO INTRODUCED IN 1900 WAS DRIVEN FROM THE REAR SEAT! THE FRONT SEAT WAS FOR PASSENGERS.
TIMES CHANGE— FOR THE BETTER!
TODAY, THE AVERAGE COST OF A TIRE IS $12.00 AND IT IS EXPECTED TO RUN 25,000 MILES (A COST OF APPROXIMATELY 1/20 CENT PER MILE!) IN 1910 THE AVERAGE TIRE COST $25.00 AND RAN ONLY 2500 MILES— (A COST OF ONE CENT A MILE!)
CONTRARY TO THE POPULAR BELIEF, MONKEYS DO NOT HAVE FLEAS!....(FLEAS LIVE ON CATS, DOGS, RABBITS, BATS AND POULTRY, BUT NOT ON MONKEYS!)

Bigelow-Sanford Expert Named to Research Institute. G. E. Hopkins, technical director of the Bigelow-Sanford Carpet Company, has been named a member of the executive committee of the newly formed Industrial Research Institute, a national organization composed of corporation research executives. Maurice Holland, director of the National Research Council's Division of Engineering and Industrial Research, will act as executive officer.

★ ★ ★

Unemployment Pact Act Challenged. The constitutionality of the Connecticut Unemployment Compensation Act was challenged for the first time in a recent appeal from a compensation commissioner's finding filed in the New Haven County Superior Court. The Terminal Taxi Company of New Haven asked the court for a review of the decision by Commissioner Curtiss K. Thompson, claiming that his decision "is unlawful, illegal, and incapable of judicial enforcement because it denies to an employer the right to discharge an employee for just cause and seeks to destroy the reciprocal rights and obligations of master and servant."

The taxi company claims that the Unemployment Compensation Act, "so far as such act attempts to give benefits to persons lawfully discharged from employment, is unconstitutional, void, illegal, in deprivation of common rights, confiscatory, and deprives persons of their property without due process of law."

The controversy started shortly after Francis A. McLaughlin of New Haven, a driver for the Terminal Taxi Company, filed a claim for unemployment compensation benefits on the ground that he had been discharged. An examiner of the State Labor Department approved the claim and an award was made. The taxi company appealed, asserting that McLaughlin had been discharged for cause.

Commissioner Thompson, after hearing both sides, found the award was justified. The taxi company now disputes his finding both on the facts and on the law in its appeal to the Superior Court.

★ ★ ★

Bristol Company Publishes Booklet on Metavane System. A four-page bulletin, No. 513, has just been published by The Bristol Company, Waterbury, describing its new Metavane System of Pneumatic Telemetering. The bulletin gives full information regarding the use of this instrument, particularly in hazardous atmospheres, for recording and automatically controlling flow, temperature, pressure and liquid level at a distance from the source of measurement. Copies of the bulletin may be obtained by interested parties upon written request.

★ ★ ★

Hat Corporation Promotes Moody. Joseph E. Moody, former secretary of the Manufacturers' Association of Hartford County, and for the past year personnel manager of the Hat Corporation of America, Inc., was named plant manager of the Hodshon-Berg plant of the Hat Corporation of America, Inc., effective May 1.

Joseph E. Moody

Professor Theos Langlie, formerly in charge of personnel at Wesleyan, has just been named to fill Mr. Moody's former position of personnel manager.

★ ★ ★

Labor Department Decision Overruled. A decision of the State Labor Department against payment of unemployment compensation benefits to a person who had received workmen's compensation payment, was overruled by Frank R. Odlum, Unemployment Compensation Commissioner, who ruled on June 9 that a man who had received workmen's compensation payment to compensate him for an injury, was entitled to unemployment compensation benefits if out of work. Mr. Odlum's decision was in favor of Harry Plasky of 33 Ward Street, Hartford, in his appeal from the decision of a Labor Department claims examiner who had denied his application for benefits. The Connecticut Unemployment Compensation law, on which the claims examiner based his refusal to allow the benefits, makes workers ineligible for benefits while they are receiving "compensation for temporary disability under any workmen's compensation law."

Mr. Odlum held that Mr. Plasky's compensation, which was a $1,000 lump sum settlement, was to compensate him for specific injuries that would handicap him through life, and not compensation for loss of wages due to the disability. Through the reversal of the decision, Mr. Plasky is eligible to draw the maximum benefit of $15.00 a week, and had a total of $173.66 payable to him as of June 9, the date of Mr. Odlum's decision.

★ ★ ★

Van Norman Buys Producto Company. Van Norman Machine Tool Company of Springfield, Mass., announced early in June the purchase of machine tool business of Producto Machine Company of Bridgeport. Machines previously manufactured by Producto, which will be made by Van Norman, include special milling machines, many of them specifically adapted to airplane, automobile and business machine uses.

It is understood that the entire Producto business will be removed from Bridgeport to Springfield, and housed in a new plant to be erected on the present plant area on Wilbraham Avenue, Springfield.

★ ★ ★

Washburn Heads Westfield Company. Henry S. Washburn of Plainville, Connecticut, president of the Plainville Casting Company, which operates plants in Plainville and Westfield, was recently elected president of the H. B. Smith Company, Inc. of Westfield, in a reorganization plan under Section 77b of the Federal Bankruptcy Act.

The Smith Company, formerly the city's largest industry, is a pioneer maker of boilers and radiators. It has now consolidated its manufacturing in one plant and is employing approximately 250 persons.

Mr. Washburn, it is understood, will continue as head of the Plainville Casting Company.

Curtis Heads Summit Thread. Don H. Curtis, former agent of the American Thread Company plant in Willimantic, has just been named general manager of the Summit Thread Company, East Hampton, effective July 1. At the same time the company announced that C. E. Buffum would become treasurer while William J. Martin will continue as vice president and W. F. Operer as sales manager.

★ ★ ★

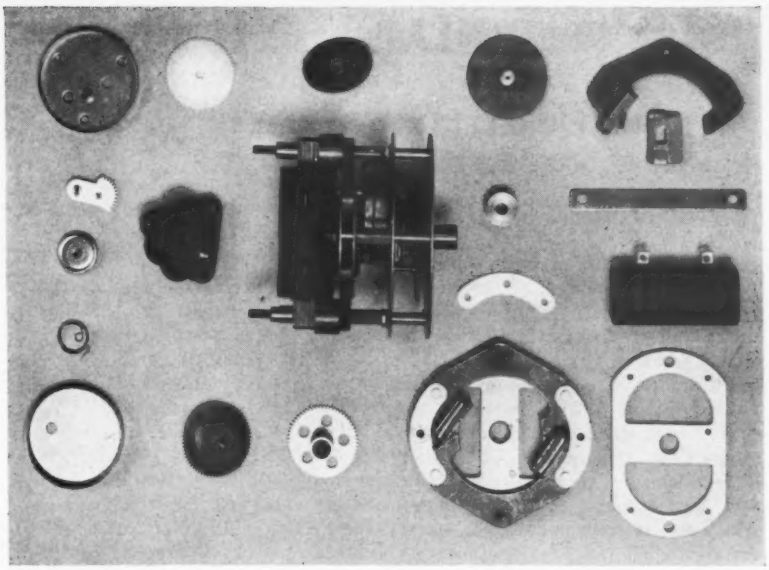
Handy & Harmon Adds New Executive — Distributes History. Handy & Harmon of Bridgeport engaged the services of John L. Christie on June 1. Mr. Christie, known to many in metallurgical and engineering circles, became assistant to Robert H. Leach, who has been elected vice president in charge of production and research.

After graduating from Yale in 1915, Mr. Christie started his metallurgical career in the laboratories of the Bridgeport Brass Company, and later after doing graduate work, became chief metallurgist in charge of the Bridgeport Brass Company's laboratories in 1917—a post he has relinquished to become associated with Handy & Harmon. He is a member and director of the American Institute of Mining and Metallurgical Engineers and a member of the American Society for Metals.

Handy & Harmon has recently distributed to its customers and friends a booklet containing the history of the company from its beginning in 1867 to its present organization. The booklet is handsomely illustrated with portraits of each of its thirty-seven officers, assistants, salesmen, secretaries and technical experts as well as those of the Bridgeport, New York, Providence and Toronto plants and the entrance to its New York office.

★ ★ ★

Ingraham Makes Switch Drive for Bendix Machine. The E. Ingraham Company of Bristol has designed and is now producing a synchronous motor switch drive control mechanism for Bendix Home Appliances Inc. This revolutionary new mechanism called "the successor to the washing machine" because it not only washes the clothes but also thoroughly rinses and dries them with no attention required on the part of the operator during the three successive operations —the cycling of the various operations being timed by the Ingraham products.



PARTS of the motor switch drive control mechanism made by E. Ingraham Co. for New Bendix laundering machine.

Although the E. Ingraham Company is best known for its large production of clocks and watches, its self-starting synchronous motor used in its electric time, alarm and strike clocks has proven so reliable and has so many advantages in its construction that it is being used extensively for interval timers, time switches, range control clocks, and similar industrial applications. The Bendix application is illustrated as being one of the most interesting by virtue of the particular interval drive that was developed especially for this job, and because of the unusual nation-wide interest in the Bendix revolutionary washing, rinsing and drying machines.

The mechanism illustrated herewith consists of a small self-starting synchronous motor, including an oil-enclosed speed reduction unit, which drives one end of a spring at a constant speed of 1 RPM. The other end of the spring is released once a minute and revolves one full revolution in a fraction of a second. A suitable gear train further reduces the speed to one revolution per hour, which is the output shaft speed. This shaft moves ahead in steps of six degrees, the steps appearing every minute and the motion occupying only a fraction of a second. The shaft is stationary for 59 and a fraction seconds every minute. In this way quick contact action is obtained and the timing of the openings and closings of the contacts is held to very close limits.

All the Money in the World couldn't buy a finer Oil Burner

Gilbarco
gives
"Most Heat per Dollar"

With Gilbarco, you get a sturdily built, trouble-free and dependable burner . . . good for long years of efficient service at low cost. Helps to pay for itself in the long run . . . . through savings in fuel bills.

Authorized dealers in Principal Connecticut Cities. Write for the address of your nearest dealer.

GILBERT & BARKER MFG. CO.
SPRINGFIELD, MASS.

DEPARTMENTS

Accounting Hints for Management

Contributed by Hartford Chapter N. A. C. A.

Fixed Charges. It is quite generally recognized that in the conduct of any business there are certain minimum, inescapable, unavoidable expenses loosely termed fixed charges. The most prominent of these is rent, or the equivalent thereof incurred for providing premises or facilities for operations. But many of the so-called "fixed" charges are not really fixed; they have variable elements in them which change with fluctuations in the volume of business.

The classification of some types of expense hinges upon executive decision, as management from time to time may modify its views with respect to their responsibilities and obligations. Certain other expenses are superimposed by reason of trade policy, expediency or contracts such as with labor unions.

Perhaps a reasonably broad definition of a fixed charge is, that it is that part of cost which has no relation to volume. Fixed charges should not be construed to include only items relating to physical assets. Some others are just as real and certain, such as salaries. A going concern cannot dispense with its manager or superintendent. The brains, experience and intelligence of certain key men must be retained regardless of production or lack of it, unless liquidation is to ensue.

To what extent depreciation is a fixed or variable expense in any plant is clearly a matter of fact to be determined by analysis and consultation between the accounting and production departments. The chief contributory factors of depreciation, using the term in a broad sense, are wear and tear, decay, inadequacy and obsolescence. It is obvious that buildings would be susceptible to practically all these factors; but the amount of wear and tear on machinery and equipment, ordinarily, has a definite relationship to the number of days, hours or shifts the plant may be operating.

Fixed expenses are charged into costs by being distributed to departmental or production center overhead and thus absorbed with other allocated burden, to the cost of goods produced. Such absorption is usually made on the basis of normal production and operations in order not to distort the price basis if subnormal or abnormal conditions prevail.

There are many methods of applying overhead. A percentage of direct labor cost is simplest and easiest to operate. The severest criticism of this method is that it is based on cost rather than time, and overhead bears more of a relationship to time consumed than to labor cost.

The direct labor hours method, however, is based upon time which is the chief reason for its accuracy. It is simple to use, but is inaccurate where machine and bench work are performed in the same department. However, where a factory is properly departmentalized, this condition should not exist. An even more satisfactory plan is to apply the overhead on standard hours where definite time standards have been established for each job.

The machine hour method is sometimes used. All overhead expenses are charged directly to the machine and divided by the hours of machine operation to arrive at the overhead rate per machine hours. Use of the machine hour rate does not mean that a separate rate is calculated for each machine, as similar machines may be grouped and a machine hour rate secured which may be used for each machine in the group.

There are other methods of applying overhead but those described are the most common. No one method can be considered as best for all industries and it is frequently desirable to use more than one method in different departments of the same plant.

★ ★ ★

J. E. Simmons Heads Hartford Chapter, N. A. C. A. At the annual meeting and election of officers of Hartford Chapter, N. A. C. A., J. E. Simmons of the Arrow-Hart & Hegeman Electric Company was chosen President for the ensuing year. Other officers and directors elected were as follows: Vice Presidents, George W. Osborn, International Silver Co.; Francis L. Haskell, Wallace Barnes Co.; Secretary, R. L. Goodwill, Trumbull Elec. Mfg. Co.; Treasurer, Fred R. Jones, Int. Business Machines; Directors, Donald B. Bassett, Felt & Tarrant Mfg. Co.; Edw. H. Bengston, Scovill Mfg. Co.; Geo. Fredrickson, The E. Ingraham Co.; Louis J. Schuster, Chase Brass & Copper Co.; Einar W. Palm, Turner & Seymour Mfg. Co.; Junius H. Cooper, Hamilton Standard Propeller Div.; Walter C. Milkey, The Stanley Works.

Transportation

Proposed Cancellation or Modification of Ratings and Commodity Rates. In a joint docket bulletin recently issued, the chairmen of the various freight associations in Eastern Territory have set forth a sizeable list of commodities upon which it is proposed either to modify the existing ratings or to completely cancel them, allowing the classification basis to apply. Hearings by appointment were held at the Hotel Statler, Buffalo, New York, beginning June 13.

Advance notice of these hearings together with a list of commodities of possible interest to Connecticut shippers on which it is proposed to cancel exception ratings and commodity rates, was included in the Association's Transportation Bulletin No. 567, dated June 6.

★ ★ ★

Proposed Increases of Express Rates. On June 8, 1938, the Railway Express Agency, Inc. and the Southeastern Express Company filed with the Interstate Commerce Commission a petition seeking authority to increase their rates and charges and to make other modifications of the express rate structure.

It is proposed, specifically, to: (1) increase all first class rates under $9 per hundred pounds by 10%, maximum $9.45 per hundred pounds; (2) increase all first class rates $9 per hundred pounds and higher by 5%; (3) substitute for present graduated charges for first class shipments weighing 1 to 99 pounds a scale of graduated charges computed by applying the increased first class 100 pound rates pro rata for each pound, plus 10¢ with specified minimum and

maximum charges; (4) increase all less-than-carload commodity rates by 10%, except rates increased since March 27, 1938; (5) increase carload rates on commodities other than berries, fruits, melons and vegetables by 10%; (6) increase minimum charges on third class matter and on advertising matter, samples and other articles similarly rated to 25¢, 30¢ and 35¢ dependent upon the distance traversed; (7) cancel the present rule which provides for discarding fractions of less than one-half pound and whenever fractions occur use the next higher whole number.

It is estimated that the proposed modification of the express rate structure will produce approximately five million dollars additional revenue on the present volume of traffic and that the revised rates will attract a substantial volume of additional traffic in the lower weight brackets.

The proposal outlined in number 3 contemplates reductions in the rates on shipments generally weighing less than 25 pounds. In some instances, the reductions will apply on shipments weighing 50 pounds and less. As illustrative of this situation, the maximum increase on shipments weighing less than 100 pounds moving from Hartford to either Boston or New York, would be about 22 cents and the maximum reduction about 19 cents. The break between increases and reductions would occur at about 50 pounds, shipments weighing less than this amount obtaining the benefit of the reductions and shipments in the higher weight bracket being increased.

The Interstate Commerce Commission is requested to institute an investigation to determine whether or not the proposed rates, charges, and classification will be just and reasonable.

★ ★ ★

Connecticut Truck Concerns Fight New York Racket. Connecticut trucking companies were among the many witnesses whose testimony brought about the arrest of 76 New York truckmen's union members and six alleged gangsters on charges of violating the federal anti-racketeering law.

Bench warrants for the arrest of the union members, who are alleged to have "extorted" $1,000,000 or more annually from trucking companies and private owners of trucks, were issued by Federal Judge Robert P. Patterson after a grand jury inquiry directed by John Harlan Amen, special assistant to Attorney General Cummings and known as the "No. 1 federal racket-buster."

The system, as it affected Connecticut truckmen, increased the costs of hauling freight into New York and reduced the earnings of members of the Hartford, Bridgeport, New Haven and Waterbury truckmen's unions, according to Myles W. Illingworth, executive secretary of the Motor Truck Association of Connecticut. The New York union, whose officers and many of whose members now are under arrest, has refused to recognize the Connecticut unions and although both are affiliated with the AFL, refuses to permit Connecticut truckmen arriving in New York terminals, to operate their trucks in picking up and delivering freight in the city. Truck owners were forced to pay $9.40 for a New York driver's services without having any control over him. The New York union member would make the deliveries and pickups and return the truck to the terminal where the Connecticut driver would then drive it back to Connecticut.

Because of this racketeering, the Connecticut union drivers have suffered through limitation of their wages. They are paid an average of 80 cents an hour for 6½ hours, whereas if they were permitted to operate in New York City they would be paid for eight or more hours' work, according to Mr. Illingworth.

★ ★ ★

Association Files Brief in Motor Rate Case. The Association filed its brief in June with the Interstate Commerce Commission on the matter of motor carrier rates, Ex Parte MC 22. The conclusion is reached in the brief that the prescription by the Interstate Commerce Commission of the commodity rates resulting from the conferences that were held by the carriers throughout New England as minima for all carriers operating throughout the territory, would not only place an unfair burden upon shippers but would be in violation of the Motor Carrier Act, as these rates were the result of negotiations and compromise rather than being based on cost of operation. It is concluded that the class rates should be revised to the extent necessary to reflect accurately the cost of operation based on mileage. The resulting rates should be prescribed as maxima and should be subject to classification ratings based on the weight and density theory.

YOUR TRAFFIC MOVES
ON TIME AND RIGHT
WHEN YOU SHIP IT VIA

GULF CARLOADING CO.

TO POINTS IN
LOUISIANA — MISSISSIPPI —
TEXAS — ARIZONA —
NEW MEXICO —
OKLAHOMA

WEDNESDAY AND
SATURDAY SAILINGS

Through Rates in Connection With Principal Truck Lines

GULF CARLOADING CO. Inc.
NEW ORLEANS FREIGHT DIST. CO., Inc.
A. D. Boone, *President*
111 King St. New York City

We offer:

GREEN OLIVE OIL SOAP
Highest quality

METAL WORKERS' SOAP
Where non-tarnishing of metals is sought

TOILET SOAPS IN CAKES
For factory use

LIQUID SOAP FOR DISPENSING SYSTEMS

We also supply an inexpensive but pure soap, solid in barrels, for general factory use.

THE J. B. WILLIAMS CO.
GLASTONBURY, CONN.

Commercial Statesmanship

By **WILLIAM H. SPENCER,** ***Export Manager,*** **Sargent and Company, Member, Foreign Trade Committee of the Association**

Editor's Note. **This is the third in a series of articles by veteran export managers, two of which have been prepared by members of the Association's Foreign Trade Committee.**

AS one responds to the invitation to contribute to these columns, a myriad of experiences crowd the halls of memory, making one conscious of the many years that have been spent in one of the most fascinating and educational vocations life has to offer. My 42 years devoted to exports (35 of them with my present principals) have made me realize that, regardless of the many hardships of travel in the torrid heat of Yucatan or Java or the penetrating cold and rarified air of the Bolivian plateau, the perils of close proximity to yellow fever in the tropics or smallpox in China, or the passing from ship to shore through the surf in a rowboat overshadowed by 19 trunks of samples and 2 of personal effects, I know of no one with whom I would have exchanged places.

My first thought is that, to be a successful exporter (or, for that matter a success in any field of activity) one must have an abiding faith in its worthwhileness over a period of years. Export business cannot be picked up when needed and dropped when domestic business seems more attractive.

A second requisite is the realization that financial risks are no greater in the foreign field than in the domestic, if the same discrimination is used. Disturbed economic conditions may cause delays of payment but, usually, time is a friend rather than an adversary and patience is indeed a virtue. I recall selling, on one of my trips, a firm in Cardenas, Cuba, regarding which I had received favorable reports; but a year passed without our having received payment. At that early date, we had no resident agent in Cuba. Our letters remained unanswered. Three years passed; and still no payment. I became alarmed, as a Cuban statute outlawed debts which had not been acknowledged by the debtor in writing within three years. Some months later found me again in Cardenas and I decided to call upon the delinquent and solicit another order, without mentioning the old account, just to see what would happen. When I presented my card, the head of the firm looked me straight in the eye and said: "We have owed you quite a sum for several years. When we pay it we will order again. We extended too much credit to a sugar mill which we eventually had to take over and operate to save ourselves. We will soon be able to pay you." And, a few months later, they did.

William H. Spencer

There are countries in South America where bankrupt persons cannot, as in this country, take a legal bath, emerge absolved and begin anew under their own name; and where the failure to pay an accepted draft at maturity is almost a prison offense.

In 1914, just before the World War broke so unexpectedly upon us, I had arranged to take up my residence in Buenos Aires, from which point I could travel Brazil, Uruguay, Argentina, Paraguay, Chile, Peru and Bolivia, avoiding the long voyages to and from a home in New York. American residents in foreign lands, during those seven years, will never forget them and especially the sudden declaration of the armistice and the few months which followed.

We, like many another company which had special facilities for placing orders for staples, such as nail and rivet wire, ventured into the fields beyond our own manufactures. American mills accepted orders subject to delivery when possible and not subject to cancellation; but, to sell in South America, we were obliged to contract to deliver by a certain date. We endeavored to obtain as much time as we believed would be required; but, when the armistice was declared we found ourselves with orders valued at well over $400,000 unshipped—all of which were legally invalid because of our failure to deliver as contracted. Germany came into the market with quotations 50% below ours although she was necessarily vague as to deliveries. Then our mills began to deluge us with merchandise.

Cooperation Versus Belligerency

The first steamer brought wire for one of our customers valued at about $58,000 and for another to the value of about $40,000. Fortunately both were sorely in need of wire and accepted the shipments and our drafts;

but, when the next vessel arrived with about the same amount of wire for each client, I received brief but polite notes rejecting the cargo as overdue. The steamship agents phoned me that the warehouses were filled and they were unloading on the open street beside the dock. (I am telling this story to show the value of cooperation as against belligerency, and the friendliness of the time element.) You may imagine that I was worried; but I based my solution upon the sanctity of accepted drafts. I called upon our two customers, acknowledged the receipt of their notes; and, to their great astonishment, asked them why they had chosen to lose so much money. Probably, mentally questioning my sanity, they asked how they could possibly lose if they refused the cargo. I called their attention to the fact that Argentine exchange was 40% off; that the first drafts would soon mature; that they could not expect me to grant an extension if they refused the wire on order; and that the 40% they would lose we would not gain, —it would be virtually thrown into the Atlantic. I reminded them that it was a time for cooperation—not controversy; and made them a proposition whereby, if they accepted everything they had ordered, at the prices on the orders, we would agree to extend the drafts, if necessary, for a year, during which exchange would, undoubtedly, right itself. They, of course, were to pay the customary local rate of interest (8%) on the extensions. I pointed out, also, that, while German quotations were low, their deliveries were impossible. Both customers accepted the proposition verbally—without written agreement of any kind. With the arrival of everything on order and the acceptance of the corresponding drafts, my worries were virtually over. We extended the drafts, not only for the 12 months, but for several months more, they paying the 8% interest.

In the meantime exchange practically righted itself and, in the case of the larger customer, we brought back the funds to New York at a profit. As to the other, when exchange had come down to 20% off, the customer said, "Amigo, I don't like this idea of having the drafts extended each month. Let us split the present difference—you stand 10% and we the other 10%; and let me pay up now." This was done; but, instead of converting the Argentine pesos into dollars and remitting them to New York, I had them deposited at a small rate of interest in a Buenos Aires bank until exchange became about normal. These were eventually converted into dollars and remitted to New York at a small profit. Several of our competitors, who had preferred the strong-arm method to save themselves, soon auctioned off their furniture and closed their offices.

But space here is limited; and I can see that anecdotes must be held in restraint until some future time.

In summing up, may I suggest that success in exporting requires a realization that in dealing with people of other countries or races, we are usually dealing with our equals and, often, our superiors.

That the vocation demands, as Ambassador Stimson once said at a meeting of the American Club in Buenos Aires, "Commercial Statesmen" rather than order-takers or "High-Power Artists."

I recall sitting at luncheon in a hotel in Santiago, Chile, when two newly arrived young American salesmen occupied a table near me. I overheard one of them say to the other: "I have it all figured out—how to get business here. First, you call on the trade and introduce yourself, but make no reference to business. The next time you call you make a date to take the customer out, give him plenty to drink, and do up the town. When you call the third time you will get a good order." I had the opportunity of seeing those two young men depart, sadder and, I hope wiser. One remarked, "I never saw such a dead place. I didn't pay for my shoeleather." And yet, I know of no country where an American salesman is so genially and democratically received as in Chile, Peru or Bolivia.

Rapid changes have taken place in the export field since the World War. There was a time when a domestic depression and an export one were not necessarily coincident; but, more and more, with the rapidity of communication and international interlocking of interests, both fields seem to move together, at least within two or three months of each other. In 1931, when I called upon a Chinese merchant in Singapore, he summed up his situation in a very few words: "When your country going to buy something?" Large stores of tin and rubber, unsold, had piled up in the Straits Settlements and the East Indies.

Then, too, competition is much keener and local manufacturing has developed at a rapid pace. Fortunately, export sales are, today, of the goods of the higher qualities; and there have been periods of several years when export prices have ranged higher than those in the domestic market.

To build an export business, believe in it and go after it. It cannot be built by correspondence or advertising alone; and capable, reliable resident sales representatives in foreign lands are essential.

★ ★ ★

Exchange Situation in Colombia. The exchange and export control board of Brazil has insistently maintained its policy of making foreign exchange available in payment of essential merchandise imports within 8 days subsequent to the date of request for permission to remit, provided all documents are in order.

Among the group of commodities and individual items classified as "essential" are the following: all material and products for the manufacturing industry; agricultural and industrial machinery; parts and accessories; certain chemicals, drugs, medicines; machinery in general; tires for passenger cars, trucks, busses; books and school supplies; sanitary supplies and fixtures; structural iron and steel bars; fertilizer; motion pictures; motion picture theater apparatus supplies; material purchased by the National Government.

It is estimated that about 50% of the total demand for exchange in payment of merchandise imports is for essential commodities and products. Payments of non-essential merchandise imports have been subjected to a delay of approximately nine weeks. On May 18 the exchange authorities reported that all requests received up to March 13 had been released and foreign exchange made available.

An importer holding an exchange permit has thirty days within which to purchase his exchange, and if he has not done so within that time, the permit lapses and a new permit cannot be applied for until the interested party deposits sufficient pesos with a local bank to cover the exchange involved. Once this is done a new application is accepted and the corresponding exchange permit is subjected to the same delay as are original applications presented on the same date. Under present circumstances this

would mean a delay of approximately nine weeks.

Delayed merchandise payments are reported to total $9,000,000, classified as follows: due on non-essential and essential merchandise imports represented by permits released prior to January 1, 1937, but not utilized up to November 3, 1937, $1,000,000; lapsed permits released subsequent to January 1, 1937, $2,000,000; unreleased exchange on applications received subsequent to March 13, 1938, to cover imports from Germany, $3,000,000; unreleased exchange on applications received subsequent to March 13, 1938, to cover imports from other countries, $3,0000,000.

As will be seen from the above breakdown, $2,000,000 are represented by those cases where importers failed to utilize permits to purchase foreign exchange in payment of merchandise imports before the expiration of the thirty day period.

In the case of the estimated $1,000,000 due to foreign shippers for merchandise covered by exchange permits issued prior to January 1, 1937, but not utilized up to November 3, 1937 (on which date they were suspended by Resolution No. 63 of the Exchange and Export Control Board pending revalidation), the exchange control authorities state that all applications involving these debts are accepted, provided that they are accompanied by certificates from local banks to the effect that sufficient pesos have been deposited to purchase the foreign exchange involved. Permission to purchase foreign exchange called for in these accepted and approved applications is subjected to the priority rule, provided the applications cover non-essential merchandise imports, but if essential goods are involved exchange is made available after a nominal delay only.

From the procedure outlined above it will be seen that the Exchange and Export Control Board is not "revalidating permits" issued prior to January 1, 1937, unless the application is accompanied by the bank deposit certificate. As explained by the authorities, this policy has been adopted in order to eliminate the granting of exchange permits without assurance that they will be utilized.

★ ★ ★

National Foreign Trade Convention Scheduled this Fall. The National Foreign Trade Council has just scheduled the Twenty-Fifth National Foreign Trade Convention at the Hotel Commodore, New York, on Monday, Tuesday and Wednesday, October 31, and November 1, 2, 1938. The general theme of the convention will be "The Trade of the World Today."

All engaged in the promotion of overseas commerce are cordially invited to be represented at this convention.

The program being arranged will cover the exceptional difficulties which continue to challenge the thought and tax the resources of American exporters, importers and investors. The convention committee, in preparing the program, has taken precautions to provide ample time for discussion from the floor on the subjects dealt with by selected speakers.

★ ★ ★

The Situation in Brazil. Recently good news has been received from Brazil to the effect that the recent exchange stringency has been lifted with regard to payment for imports from the United States. "Spot" exchange to pay for U. S. imports is now said to be available and funds may be obtained for the liquidation of outstandings, which should result in our increased trade with Brazil.

OUCH!

(Continued from page 13)

the indigestibility of so many of them. I fear and scream a stringent "Ouch" when I contemplate that their multiplicity may dilute the foundation laws that gave us:

The right to grant or to withhold from government specific powers as stated in the Constitution and to alter that Constitution by a peaceful process agreed upon in the original document;

The right to choose and get rid of the personnel of government by orderly elections;

The right to a voice through our ballot in the making of the laws;

The right to have our accusers face us in open court;

The right to trial by jury;

Protection against retroactive criminal laws;

Limits upon the definition of treason, so that it cannot be held treasonable to criticize our political servants, as it is in some countries;

Freedom of religion; Freedom of speech; Freedom of assembly;

The right of petition, which is the right freely to present opinions to the executive and legislative branches of the government;

The right to be secure in our persons, papers and effects against unreasonable searches and seizures;

The right to indictment in the case of serious offenses;

Protection against plural jeopardy;

Protection against being forced to testify against ourselves, that is, protection against torture;

Protection from being deprived of life, liberty or property, without due process of law;

Protection against confiscation of property;

Protection against excessive bail;

Protection in the rights of citizenship which cannot be denied because of race, religion, or economic or political affiliations, or previous status;

The right, by our own agencies, to improve our social and economic condition without governmental impediments;

The right to protect ourselves from oppression either by a majority or an organized minority.

LEGISLATION

(Continued from Page 2)

Senator Maloney of Connecticut to regulate over-the-counter stock sales was passed and sent to the President. Regulation is provided through voluntary registration.

Flood Control. The $375,000,000 Flood Control Bill was made into law. It authorized construction of projects from the Connecticut Valley to the Lower Mississippi and the Williamette, giving the government power rights in all projects.

Merchant Marine. The Bland Bill (H. R 10315) amended the Merchant Marine Act of 1936, establishing a board for voluntary labor disputes arbitration.

Agriculture. The Agriculture Adjustment Act of 1938 (H. R. 8505) and now Public Law No. 430, continues and expands the original AAA Act and the conservation program of the Soil Conservation Service. It also establishes four regional laboratories to study new uses and markets for farm products.

Civil Service. Unless some future Congress backtracks on the last ses-

sion of the 75th Congress, some 14,000 first, second and third class postmasters have an unbreakable hold on their jobs for the remainder of their lives. This group, nominated by the President and placed under the classified Civil Service, was confirmed by Congress. The newly enacted law is a virtual blanketing of the present office holders for life. It means that at the expiration of their term (4 years) presidential postmasters will be reappointed after they take the Civil Service examination without any competition. Sponsors of the law, including the President, regard the measure as an extension of Civil Service reform, while opponents view it as a virtual freezing of Democratic job holders into lifetime jobs, since the new law provides all Presidential postmasters hereafter appointed shall serve "without term."

Chief Measures That Failed to Pass

Government Contracts. The Wagner Bill (S. 3390) and its companion Healey Bill (H. R. 9745) to amend Walsh-Healey Act to require all persons contracting with or borrowing from the Federal Government to comply with decisions and orders of the National Labor Relations Board. The Walsh Bill (S. 2165) and its companion Healey Bill (H. R. 6449) amending Walsh-Healey Act to permit blacklisting for three years of government contractors not complying with orders of the NLRB.

Labor. Byrnes Bill (S. 2403) to broaden Anti-strikebreaking Act of 1936 to make transportation of strikebreakers in interstate commerce a criminal act. Wheeler and Johnson Bill (S. 2226); Barkley Bill (S. 2345) and Black Bill (S. 2454) to prohibit shipment of goods made by child labor in interstate commerce.

Reorganization. Various bills (H. R. 8202, 8276, 8277, 7730 and S. 2700 and 3331) to create a Department of Welfare; create an Auditor General in place of the Comptroller General; establish a Civil Service Administrator in place of the Civil Service Commission; allow the President to have six administrative assistants; and permit general reorganization of the executive departments of the government.

War Profits. Hill Bill (H. R. 6704) to take so-called profits out of war by means of heavy taxation.

National Planning. Norris Bill (S. 2555) to divide country into seven districts and permit developments of projects in each similar to the TVA. Known as the "Little TVA Bill."

Railroads. McCarran Bill (S. 69) to limit length of trains to seventy cars each. Goldsborough Bill (H. R. 10608) to permit loans to railroads by the Reconstruction Finance Corporation. Pettingill Bill (H. R. 1668) to permit railroads to charge a lower rate for long hauls than for short ones.

Patent Licensing. McFarlane Bills (H. R. 9259 and 10068) to permit issuance of a license by the Commissioner of Patents if the invention has not been manufactured within a period of five years after the patent is granted.

Social Security. Towey Bill (H. R. 9209), Clark Bill (S. 3293) and Vandenberg Bill (S. 3408) and other bills for amendment of the Social Security Act.

Wire Tapping. Wheeler Wire Tapping Bill (S. 3756) to permit wire tapping by government agencies.

Gillette Bill. (S. 2549) to prevent acquisition of stock of a corporation by another corporation if it tends toward creating a monopoly.

THE STATE'S FISCAL SITUATION

(Continued from Page 1)

nature of consumption taxes. "Ability to pay" is not the only test of a sound tax. When consumption taxes occupy their rightful place in a broad tax structure, such as we have in Connecticut, they are not validly open to the criticisms which brought about the rejection of the interim commission's recommendation in 1935. By any test, industry is bearing more than its share of the total tax burden in this State; and those who are attempting to carry on the productive enterprises of this Commonwealth, with all that flows from them in social and economic benefits, are entitled to expect that an appropriate share of the levies necessary to put a balance in the State Treasury will be carried by a wide cross section of the general public.

AMERICAN-HAWAIIAN S·S·CO.

ANNOUNCES ITS

Extended Service

NORTH ATLANTIC SERVICE. *Sailings Twice Weekly.*
ATLANTIC COAST PORTS OF CALL: Boston, Camden, New York, Philadelphia, Port Newark. (Eastbound only, Norfolk.)

SOUTH ATLANTIC SERVICE. Westbound Joint Service with Arrow Line: 3 sailings every 16 days. Eastbound, 2 sailings every 16 days.

ATLANTIC COAST PORTS OF CALL: Baltimore, Bridgeport, Charleston, Jacksonville, New London, Norfolk, Savannah. (Eastbound only, Mayaguez, Ponce, San Juan, P.R., Wilmington, N. C.)

PACIFIC COAST PORTS OF CALL *(for both Services):*
Alameda, Astoria, Longview, Los Angeles, Oakland, Portland, San Francisco, Seattle, Tacoma. (South Atlantic, Westbound only, San Diego.)

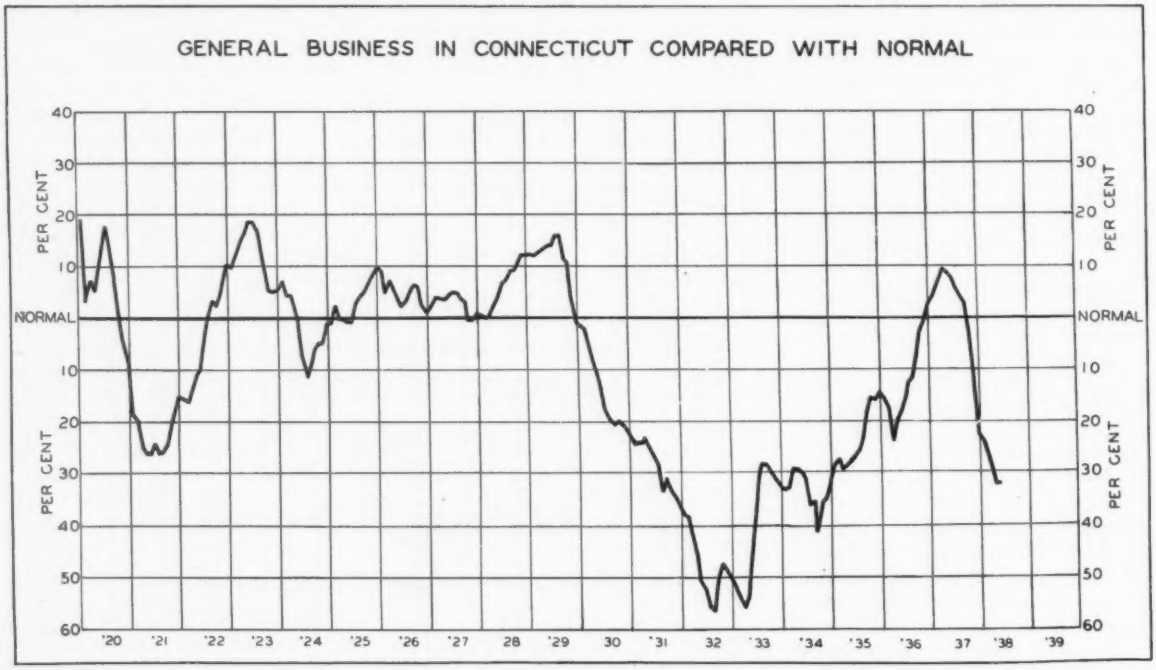
Head Office • 215 Market Street • San Francisco

BUSINESS PATTERN

General Summary. During May general business activity in Connecticut averaged 32% below the estimated normal, approximately the same as in April. Activity in the various lines of industry showed divergent trends during the month, several of the components of the general business curve rising slightly over April. In the manufacturing industry generally, operations were curtailed somewhat more than the usual seasonal amount. The adjusted index of the number of man-hours worked in factories decreased less than one point from the preceding month, the smallest month-to-month decrease since the beginning of the current recession. Factory employment also declined less than 1%. Activity in building construction fell to 43% below the estimated normal compared with −39% a month earlier and −22% in May, 1937. Freight carloadings originating in Connecticut cities showed an improvement of 1% over April while metal tonnage carried by the New Haven Road increased 2% over the same period. Activity in Connecticut cotton mills reversed the trend of the preceding month and reached the highest level attained this year. Data for the first half of June indicate a continuation of the irregular movements of May. Freight carloadings originating in Connecticut were approximately equal to May and factory employment in one large city has shown a moderate increase over four weeks earlier.

Business activity in the United States decreased rather sharply in May due to a reduction in the rate of operations in the iron, steel and automobile industries. Steel production declined more than seasonally and was only 38% of the estimated normal. New orders for machine tools also experienced a substantial decrease and were at the lowest level since April, 1935. Consumption of raw cotton by textile mills showed a definite improvement over the preceding month. The weekly index of the New York Times tended moderately downward during May but increased during the week ended June 11. Retail sales of automobiles has experienced some improvement with the result that manufacturers have been revising upwards their production schedules for June and July. Current output of cars, however, is still only one-third of what it was a year ago. The rate of steel mill operations declined to 25% of capacity during the holiday week of June 4 but since then, as a result of an increase in orders from miscellaneous consumers, has shown a moderate tendency to expand. Cotton mill activity has improved as new orders for goods have run substantially in excess of current reduced output.

The index of wholesale prices compiled by the U. S. Bureau of Labor Statistics continued to recede slowly during the four weeks ended June 4. At the end of this period the combined index for these commodities was 0.3% below four weeks earlier. Farm prices decreased 0.3%; foods increased 1.3%; and all other commodities declined 0.7%. The weakness in farm prices has been in part due to the bumper crops, particularly of wheat, expected this year. The June 1 report of the Department of Agriculture indicated that the total wheat crop would be the largest on record. Since June 1, however, there has been some deterioration in the crop due to rust and other damage.



The index of the cost of living in the United States in May showed no particular change from the preceding month although there were minor decreases in the cost of food and rent. The cost of fuel declined seasonally.

Financial. The number of business failures in Connecticut cities and towns during the four weeks ended June 4 increased 5% over the corresponding period last year. Gross liabilities, due to one large failure, were considerably larger than a year ago. The number of new corporations formed and the total amount of capital stock involved were both considerably below last year. May sales of real estate expanded above April but ran 18% below the same 1937 period. The aggregate value of mortgage loans was 10% below last year.

Construction. Construction work in progress during May declined substantially from April. The volume of new construction work started, however, increased about seasonally. During the four weeks ended June 4 the number of building permits issued in Connecticut declined 4% from the same period last year while the total value of permits fell off 23%.

Building activity in 37 eastern states experienced a marked increase in May due largely to an expansion in public work and utility projects. On a seasonally adjusted basis the total value of building contracts issued was the highest since August last year and above May, 1937. New residential building also increased more than seasonally in May and was within 1% of the total for the same month a year ago.

Labor and Industry. While the composite picture for activity in the manufacturing industry indicated somewhat more than the usual seasonal decrease from April, the trend in the various cities showed a considerable variation. In Bridgeport factories the number of man-hours worked and factory employment both increased slowly during the month. In Hartford there was also a small increase over April. New Haven reported the usual seasonal decrease from the preceding month while in Bristol and New Britain the contraction from April was greater than normal. All cities continued to show a substantial decrease from the corresponding month last year, losses of approximately 30% taking place in New Haven and Hartford concerns while the largest loss occurred in Bristol factories. Employment in Waterbury brass factories, after holding comparatively steady during the first four months of the year, was reduced 2% in May and was 28% below May, 1937. The average weekly wage per factory employee in Connecticut has fallen off substantially during the past year due principally to a reduction in the average number of hours worked.

In the United States factory employment and payrolls continued to decrease during May.

Trade. Retail trade in the United States continued to fall off substantially during May, the adjusted index of sales by department stores declining to 79% of the 1923-1925 average against 83% in April and 93% in May, 1937. Part of the reduction from last year was due to a lower price level.

Transportation. The index of freight carloadings originating in Connecticut stood at −39.4% during May compared with −40.5% in April. On the New Haven Road shipments of automobiles, bituminous coal and merchandise in less-than-carload lots declined more than seasonally and loadings of building materials failed to increase as much as in previous years.

How to File Business Papers and Records—Allen Chaffee

Tells everything needed by the business office manager who wishes to select the best filing system for his purposes; and by the young girl who wishes to become an expert in this branch of office work. It covers all types of systems, equipment, methods of setting up and operating systems, how to index, etc.

Market Place—A. D. Noyes

This is more than an autobiography of the financial editor of the New York Times. It is more than a political history from the 80's to date. It is a financial history in which the various crises, panics and depressions are taken up in turn with their causes, results and their repercussion on the political and general outlook of the country. He even covers the bank panic of 1933 and the experiments of the present administration. It is written in the easy, readable style of a trained observer and a highly trained writer.

Practical Radio Advertising — H. S. Hettinger

Radio is today recognized as one of the major advertising media. It has progressed to such a point where guiding principles must be formulated regarding its scientific use. This is an excellent basic volume on the fundamentals of broadcast advertising which should prove of value to any concern contemplating advertising through that medium. Among other things this book also contains complete statistics on who listens to the radio and when.

Promises Men Live By — Harry Scherman

This book is a new approach to economics. In non-technical language the author has given us what we have long waited for: an understanding of problems that, unless they are understood by the average citizen, can never be solved. It is a bold book, which could have been published only in a free democratic country.

Speaker's Desk Book — Martha Lupton, Editor

An invaluable reference book for anyone who is ever called upon to "say a few words" or to express ideas on paper. Should also prove of great interest to advertising managers, house organ editors and the writers of pep bulletins and sales letters. The contents include: 1. 5000 bright, pointed epigrams such as every speaker likes to weave into his talks; 2. 1187 anecdotes in which are incorporated the best of the modern funny stories plus a few old favorites; and 3. "Jewels of thought"—those masterpieces from which we so frequently wish to borrow a sentence or a paragraph.

Successful Letter Writing: Business & Personal—A. E. Hower

Putting warmth and effectiveness into business letters is the keynote of this practical book on business and personal correspondence. The author has directed with flattering success a consulting service in letter-writing for 14 years, and it is this wealth of experience that is incorporated in this volume. It is a unique guide to grammar, punctuation, layout and the mechanics of letters.

Ed. NOTE. This department, listing products manufactured in Connecticut by company, seeks to facilitate contacts between prospective purchasers in domestic or foreign markets and producers. Not finding any given listing, buyers should write this department for further information.

(Adv.)

Accounting Forms
The Baker Goodyear Co New Haven

Accounting Machines
Underwood Elliott Fisher Co Hartford

Acids
Naugatuck Chemical (Div of U S Rubber Prod Inc) Naugatuck & 1790 Broadway New York

Adding Machines
Underwood Elliott Fisher Co Hartford

Advertising Printing
The Case Lockwood & Brainard Co Hartford

Advertising Specialties
The H C Cook Co 32 Beaver St Ansonia
Scovill Manufacturing Co (Made to Order) Waterbury

Aero Webbing Products
Russell Mfg Co Middletown

Air Compressors
The Spencer Turbine Co Hartford

Aircraft—Repair & Overhaul
United Airports Div United Aircraft Corp Rentschler Field East Hartford

Airplanes
Chance Vought Aircraft Div United Aircraft Corp East Hartford
Sikorsky Aircraft Div United Aircraft Corp Bridgeport

Aluminum Castings
Newton-New Haven Co 688 Third Avenue West Haven

Aluminum Forgings
Scovill Manufacturing Co (small) Waterbury

Aluminum Goods
Scovill Manufacturing Co (To Order) Waterbury

Aluminum—Sheets & Coils
United Smelting & Aluminum Co Inc New Haven

Ammunition
Remington Arms Co Inc Bridgeport

Aromatics
Naugatuck Chemical (Div of U S Rubber Prod Inc) Naugatuck & 1790 Broadway New York

Artificial Leather
The Permatex Fabrics Co Jewett City
Zapon Div, Atlas Powder Co Stamford

Asbestos
Rockbestos Products Corp (insulated wire, cable and cords) New Haven
The Raybestos Div of Raybestos-Manhattan Inc (brake lining, clutch facings, sheet packing and wick) Bridgeport

Assemblies, Small
The Wallace Barnes Co Div, Associated Spring Corp Bristol

Automobile Accessories
The Rostand Mfg Co (windshields, seats, and body hardware) Milford
The Wiremold Co (automobile loom & windshield wiper tubing) West Hartford

Automotive Friction Fabrics
The Russell Mfg Co Middletown

Automotive & Service Station Equipment
Scovill Manufacturing Co (Canned Oil Dispensers) Waterbury

Balls
The Abbott Ball Co (steel bearing and burnishing) Hartford
The Hartford Steel Ball Co (steel bearing and burnishing, brass, bronze, monel, stainless, aluminum) Hartford

Barrels
The Abbott Ball Co (burnishing and tumbling) Hartford
The Hartford Steel Ball Co (tumbling) Hartford

Bathroom Accessories
The Charles Parker Co Meriden

Bearings
Norma Hoffmann Bearings Corp (ball and roller) Stamford
The Fafnir Bearing Co (ball) New Britain
New Departure Div of General Motors (ball) Bristol

Bells
The Gong Bell Mfg Co East Hampton
Sargent and Co New Haven
The N N Hill Brass Co East Hampton

Belting
The Russell Mfg Co Middletown
The Thames Belting Co Norwich

Benches
The Charles Parker Co (piano) Meriden

Binders Board
Colonial Board Company Manchester

Blocks
Howard Company (cupola fire clay) New Haven

Blower Fans
The Spencer Turbine Co Hartford
Colonial Blower Co Hartford

Blower Systems
Colonial Blower Co Hartford

Boilers
The Bigelow Co New Haven

Bolts and Nuts
Clark Brothers Bolt Co Milldale
The O K Tool Co Inc (T-Slot) 33 Hull St Shelton
The Blake & Johnson Co (nuts, machine screw-bolts, stove) Waterville

Bottle Bobbins
Sonoco Products Co (Climax-Lowell Div) Mystic

Box Board
National Folding Box Co New Haven
New Haven Pulp & Board Co New Haven
Robertson Paper Box Co Montville
The Lydall & Foulds Paper Co Manchester

Boxes—Paper—Folding
Atlantic Carton Corp Norwich
S. Curtis & Son Inc Sandy Hook
M. S. Dowd Carton Co Hartford
National Folding Box Co (paper folding) New Haven
The New Haven Pulp & Board Co New Haven
Robertson Paper Box Co Montville

Brake Lining
Colt's Patent Fire Arms Mfg Co Hartford
The Raybestos Div of Raybestos-Manhattan Inc (automotive and industrial) Bridgeport

Brass and Bronze
The American Brass Co (sheet, wire rods, tubes) Waterbury
The Bridgeport Rolling Mills Co Bridgeport
The Bristol Brass Corp (sheet, wire, rods) Bristol
The Miller Co (Phosphor bronze in sheets, strips and rolls) Meriden

Brass Goods
Sargent and Company New Haven
Scovill Manufacturing Co (To Order) Waterbury

Brass Mill Products
Bridgeport Brass Co Bridgeport
Scovill Manufacturing Co Waterbury

Brass Stencils—Interchangeable
The Fletcher Terry Co Box 415, Forestville

Brick—Building
The Donnelly Brick Co New Britain

Bricks—Fire
Howard Company New Haven

Brooms—Brushes
The Fuller Brush Co Hartford

Buckles
The Hatheway Mfg Co (Dee Rings) Bridgeport
The Hawie Mfg Co Bridgeport
The G E Prentice Mfg Co New Britain
John M Russell Mfg Co Inc Naugatuck
B Schwanda & Sons Staffordville
The Patent Button Co Waterbury

Buffing & Polishing Compositions
Apothecaries Hall Co Waterbury
Lea Mfg Co Waterbury

Buffing Wheels
The Williamsville Buff Mfg Co Danielson

Buttons
B Schwanda & Sons Staffordville
The Patent Button Co Waterbury
Colt's Patent Fire Arms Mfg Co Hartford
Scovill Manufacturing Co (uniform and tack fastened) Waterbury

Cabinets
The Charles Parker Co (medicine) Meriden

Cables—Wire
The Wiremold Co (armored, armored leaded and non-metallic sheathed cable) West Hartford

Carpet Lining
Palmer Brothers Co New London

Castings
The Charles Parker Co (gray iron) Meriden
The Derby Castings Co (heavy bronze) Seymour
The Bradley & Hubbard Mfg Co (grey iron, brass, bronze, aluminum) Meriden
The Sessions Foundry Co (gray iron) Bristol
John M. Russell Mfg Co Inc (brass, bronze and aluminum) Naugatuck
McLagon Foundry Co (gray iron) New Haven
Newton-New Haven Co (zinc and aluminum) 688 Third Ave West Haven
The Greist Mfg Co (white metal, slush, permanent moulds) 503 Blake St New Haven
Scovill Manufacturing Co (brass and bronze) Waterbury
Vanadium Metals Co (brass, bronze and aluminum) Groton
Union Mfg Co (gray iron) New Britain
Wilcox Crittenden & Co Inc (gray iron and brass) Middletown

Castings—Permanent Mould
The Bradley & Hubbard Mfg Co (zinc and aluminum) Meriden

Chain
John M Russell Mfg Co Inc Naugatuck

Chains—Bead
The Bead Chain Mfg Co Bridgeport

Chemicals
Naugatuck Chemical (Div of U S Rubber Prod Inc) Naugatuck & 1790 Broadway New York
Apothecaries Hall Co Waterbury
MacDermid Incorporated Waterbury
American Cyanamid & Chemical Corp Waterbury

Chloride of Lime
The Skat Co Hartford

Chromium Plating
Chromium Corp of America Waterbury

Chucks & Face Plate Jaws
Union Mfg Co New Britain

Clamps—Wood Workers
Sargent and Company New Haven

Clay
Howard Company (Fire Howard "B" and High Temperature Dry) New Haven

Cleansing Compounds
MacDermid Incorporated Waterbury

Clocks
The Ingersoll-Waterbury Co Waterbury

Clutch—Friction
The Carlyle Johnson Mach Co (The Johnson) Manchester

Comfortables
Palmer Brothers Co New London

Conduits
The Wiremold Co (flexible steel and non-metallic flexible) West Hartford

IT'S MADE IN CONNECTICUT

— CONTINUED —

Cones
Sonoco Products Co (Climax-Lowell Div) (Paper) Mystic

Consulting Engineers
The Stanley P Rockwell Co Inc (Consulting) 296 Homestead Ave Hartford

Contract Manufacturers
The Greist Mfg Co (metal parts and assemblies) 503 Blake St New Haven

Copper
The American Brass Co (sheet, wire, rods, tubes) Waterbury
The Bristol Brass Corp (sheet) Bristol
Scovill Manufacturing Co (pipe and service tubing) Waterbury

Copper Sheets
The New Haven Copper Co Seymour

Copper Shingles
The New Haven Copper Co Seymour

Copper Water Tube
Bridgeport Brass Co Bridgeport

Corrugated Paper & Fibre Products
The Danbury Square Box Co Danbury

Cork Cots
Sonoco Products Co (Climax-Lowell Div) Mystic

Corrugated Shipping Cases
Gair Thomas Containers Div of the Robert Gair Co Inc New London

Corsets
The Strouse, Adler Co 78 Olive St New Haven

Cosmetics
The J B Williams Co Glastonbury

Cotton Batting & Jute Batting
The Gilman Brothers Gilman
Palmer Brothers New London

Cotton Yarn
The Floyd Cranska Co Moosup

Counting Devices
Veeder-Root Inc Hartford

Cutlery
Remington Arms Co Inc Bridgeport
Sta-Brite Products Corp New Haven

Cut Stone
The Dextone Co New Haven

Cutters
The Barnes Tool Co (Genuine Barnes) New Haven
The Standard Machinery Co (rotary board, single and duplex) Mystic
The O K Tool Co Inc (inserted tooth milling) 33 Hull St Shelton

Dictating Machines
Dictaphone Corporation Bridgeport

Die Castings
Newton-New Haven Co Inc 688 Third Ave West Haven

Dies
The Hoggson & Pettis Mfg Co 141 Brewery St New Haven

Die-Heads—Self-Opening
The Eastern Machine Screw Corp Truman & Barclay Sts New Haven
The Geometric Tool Co New Haven

Dish Washing Machines
Colt's Patent Fire Arms Mfg Co Hartford

Dispersions of Rubber
Naugatuck Chemical (Div of U S Rubber Prod Inc) Naugatuck & 1790 Broadway New York

Draperies
Palmer Brothers Co New London

Drop Forgings
Wilcox Crittenden & Co Inc Middletown
The Blakeslee Forging Co Plantsville
Atwater Mfg Co Plantsville

Driers
American Mach & Fdry Co Crawford Oven Div (industrial) New Haven

Druggists Sundries
The Seamless Rubber Co Inc New Haven

Dyers and Finishers
The Aspinook Company Jewett City

Edged Tools
The Collins Co (axes and other edged tools) Collinsville

Elastic Cords & Braids
The Ansonia O & C Co Ansonia

Elastic Webbing
The Ansonia O & C Co Ansonia
The Russell Mfg Co Middletown

Electric Appliances
The Silex Co 80 Pliny St Hartford
Winsted Hardware Mfg Co Winsted

Electric Cables
Rockbestos Products Corp (asbestos insulated) New Haven

Electric Cords
Rockbestos Products Corp (asbestos insulated) New Haven

Electric—Commutators & Segments
The Cameron Elec Mfg Co (rewinding motors) Ansonia

Electric Fixture Wire
Rockbestos Products Corp (asbestos insulated) New Haven

Electric Heating Element & Units
Rockbestos Products Corp (asbestos insulated) New Haven

Electrical Instruments
The Bristol Co Waterbury

Electric Panel Boards
The Plainville Electrical Products Co Plainville

Electric Wire
Rockbestos Products Corp (asbestos insulated) New Haven
The Whitney Blake Co (Graybar Elec Co Exclusive Distributors) Hamden

Electrical Control Apparatus
The Trumbull Electric Mfg Co Plainville

Electrical Control Equipment
Colt's Patent Fire Arms Mfg Co Hartford

Electrical Goods
A C Gilbert Co New Haven
Colt's Patent Fire Arms Mfg Co Hartford

Electrical Switches
Colt's Patent Fire Arms Mfg Co Hartford

Elevators
The Eastern Machinery Co (passenger and freight) New Haven

Embalming Chemicals
The Embalmers' Supply Co Westport

Engines
Wolverine Motor Works Inc (diesel stationary marine) Bridgeport
Pratt & Whitney Aircraft Div United Aircraft Corp (aircraft) East Hartford

Envelopes
Curtis 1000 Inc Hartford

Extractors—Tap
The Walton Co 94 Allyn St Hartford

Eyelets
The Platt Bros & Co P O Box 1030 Waterbury
Scovill Manufacturing Co Waterbury

Fasteners—Slide & Snap
The G E Prentice Mfg Co New Britain
Sargent and Co New Haven
The Patent Button Co Waterbury
Scovill Manufacturing Co (snap) Waterbury

Felt
American Felt Co Glenville

Fibre Board
The C H Norton Co North Westchester
The Wm Foulds & Company Manchester

Finger Nail Clippers
The H C Cook Co 32 Beaver St Ansonia

Firearms
Colt's Patent Fire Arms Mfg Co Hartford
Remington Arms Co Inc Bridgeport

Fire Hose
Fabrics Fire Hose Co (municipal and industrial) Sandy Hook

Fireplace Goods
The John P Smith Co (screens) 423-33 Chapel St New Haven
The Rostand Mfg Co Milford

Fireproof Floor Joists
The Dextone Co New Haven

Fishing Equipment
The Horton Mfg Co (reels, rods, lines) Bristol

Fishing Lines
The Bevin-Wilcox Line Co East Hampton

Fishing Tackle
The H C Cook Co 32 Beaver St Ansonia

Flashlight Cases
Scovill Manufacturing Co (metal) Waterbury

Flow Meters
The Bristol Co Waterbury

Forgings
Clark Brothers Bolt Co Milldale
Heppenstall Co (all kinds and shapes) Bridgeport
Scovill Manufacturing Co (non-ferrous) Waterbury

Foundries
Union Mfg Co (gray iron) New Britain
Wilcox Crittenden & Co Inc (iron brass aluminum and bronze) Middletown
The Sessions Foundry Co (iron) Bristol

Foundry Riddles
The John P Smith Co 423-33 Chapel St New Haven
Rolock Inc (brass, galvanized, steel) Southport

Furniture—Upholstered

Fuses
Colt's Patent Fire Arms Mfg Co Hartford

Galvanizing
Malleable Iron Fittings Co Branford
Wilcox Crittenden & Co Inc Middletown

Gauges
The Bristol Co (pressure, vacuum, indicating, recording and controlling) Waterbury

Gears
The Snow & Petrelli Mfg Co (reverse and reduction) New Haven

Glass Coffee Makers
The Silex Co 80 Pliny St Hartford

Glass Cutters
The Fletcher Terry Co Box 415, Forestville

Glass Working Equipment
Hartford-Empire Co Hartford

Golf Equipment
The Horton Mfg Co (clubs, shafts, balls, bags) Bristol

Graphite Crucibles & Products
American Crucible Co Shelton

Grinding
Centerless Grinding Works (production & custom) 70 Knowlton St, Brdidgeport

Grinding Wheels
The Bridgeport Safety Emery Wheel Co 1302 W Broad St Bridgeport

Hardware
Sargent and Co New Haven
Wilcox Crittenden & Co Inc (marine heavy and industrial) Middletown

Hardware—Trailer Cabinet
The Excelsior Hardware Co Stamford

Hardware, Trunk & Luggage
J H Sessions & Son Bristol

Hat Machinery
Doran Brothers, Inc Danbury

Headers
The E J Manville Machine Co Waterbury

Heat Treating
The Bennett Metal Treating Co 1045 New Britain Ave Elmwood
The Stanley P Rockwell Co Inc 296 Homestead Ave Hartford

Heat-Treating Equipment
The Stanley P Rockwell Co Inc (commercial) 296 Homestead Ave Hartford
The Wallace Barnes Co Div, Associated Spring Corp Bristol

Heating Apparatus
Crane Company Bridgeport

Heating Pads
The Seamless Rubber Co Inc New Haven

Highway Guard Rail Hardware
Malleable Iron Fittings Co Branford

Hinges
Sargent and Company New Haven
Homer D Bronson Company Beacon Falls

Hoists and Trolleys
Union Mfg Company New Britain

Hose Supporters
The Ansonia O & C Co Ansonia

Hose Supporter Trimmings
The Hawie Mfg Co (So-Lo Grip Tabs) Bridgeport

Hospital Supplies
The Seamless Rubber Co Inc New Haven

Industrial Finishes
Zapon Div Atlas Powder Co Stamford

Industrial Ovens
American Mach & Fdry Co, Crawford Oven Div (all processes — batch and conveyor types) New Haven

Insecticides
American Cyanamid & Chemical Corp Waterbury

Insulated Wire Cords & Cable
The Kerite Insulated Wire & Cable Co Inc Seymour
The Whitney Blake Co (Graybar Elec Co Exclusive Distributors) Hamden

Japanning
J H Sessions & Son Bristol

Key Blanks
Sargent and Company New Haven
The Graham Mfg Co Derby

Kitchen Tools
Wallace Bros Wallingford

Knit Goods
American Hosiery Company New Britain

Labels
J & J Cash Inc (Woven) South Norwalk
Naugatuck Chemical (Div of U S Rubber Prod Inc) (rubber) Naugatuck & 1790 Broadway New York

Lacquering
Ball & Socket Mfg Co (film application) West Cheshire

Lacquers & Synthetic Enamels
Zapon Div Atlas Powder Co Stamford

Ladders
A W Flint Co 136 Haven St, New Haven

Lamps
The Rostand Mfg Company (brass, colonial style & brass candlesticks) Milford
The Greist Mfg Co (portable, office, floor, table and novelty) 503 Blake St New Haven

Latex
Naugatuck Chemical (Div of U S Rubber Products Inc) Naugatuck & 1790 Broadway New York

Ed. NOTE. This department, listing products manufactured in Connecticut by company, seeks to facilitate contacts between prospective purchasers in domestic or foreign markets and producers. Not finding any given listing, buyers should write this department for further information.

(Adv.)

Accounting Forms
The Baker Goodyear Co New Haven

Accounting Machines
Underwood Elliott Fisher Co Hartford

Acids
Naugatuck Chemical (Div of U S Rubber Prod Inc) Naugatuck & 1790 Broadway New York

Adding Machines
Underwood Elliott Fisher Co Hartford

Advertising Printing
The Case Lockwood & Brainard Co Hartford

Advertising Specialties
The H C Cook Co 32 Beaver St Ansonia
Scovill Manufacturing Co (Made to Order) Waterbury

Aero Webbing Products
Russell Mfg Co Middletown

Air Compressors
The Spencer Turbine Co Hartford

Aircraft—Repair & Overhaul
United Airports Div United Aircraft Corp Rentschler Field East Hartford

Airplanes
Chance Vought Aircraft Div United Aircraft Corp East Hartford
Sikorsky Aircraft Div United Aircraft Corp Bridgeport

Aluminum Castings
Newton-New Haven Co 688 Third Avenue West Haven

Aluminum Forgings
Scovill Manufacturing Co (small) Waterbury

Aluminum Goods
Scovill Manufacturing Co (To Order) Waterbury

Aluminum—Sheets & Coils
United Smelting & Aluminum Co Inc New Haven

Ammunition
Remington Arms Co Inc Bridgeport

Aromatics
Naugatuck Chemical (Div of U S Rubber Prod Inc) Naugatuck & 1790 Broadway New York

Artificial Leather
The Permatex Fabrics Co Jewett City
Zapon Div, Atlas Powder Co Stamford

Asbestos
Rockbestos Products Corp (insulated wire, cable and cords) New Haven
The Raybestos Div of Raybestos-Manhattan Inc (brake lining, clutch facings, sheet packing and wick) Bridgeport

Assemblies, Small
The Wallace Barnes Co Div, Associated Spring Corp Bristol

Automobile Accessories
The Rostand Mfg Co (windshields, seats, and body hardware) Milford
The Wiremold Co (automobile loom & windshield wiper tubing) West Hartford

Automotive Friction Fabrics
The Russell Mfg Co Middletown

Automotive & Service Station Equipment
Scovill Manufacturing Co (Canned Oil Dispensers) Waterbury

Balls
The Abbott Ball Co (steel bearing and burnishing) Hartford
The Hartford Steel Ball Co (steel bearing and burnishing, brass, bronze, monel, stainless, aluminum) Hartford

Barrels
The Abbott Ball Co (burnishing and tumbling) Hartford
The Hartford Steel Ball Co (tumbling) Hartford

Bathroom Accessories
The Charles Parker Co Meriden

Bearings
Norma Hoffmann Bearings Corp (ball and roller) Stamford
The Fafnir Bearing Co (ball) New Britain
New Departure Div of General Motors (ball) Bristol

Bells
The Gong Bell Mfg Co East Hampton
Sargent and Co New Haven
The N N Hill Brass Co East Hampton

Belting
The Russell Mfg Co Middletown
The Thames Belting Co Norwich

Benches
The Charles Parker Co (piano) Meriden

Binders Board
Colonial Board Company Manchester

Blocks
Howard Company (cupola fire clay) New Haven

Blower Fans
The Spencer Turbine Co Hartford
Colonial Blower Co Hartford

Blower Systems
Colonial Blower Co Hartford

Boilers
The Bigelow Co New Haven

Bolts and Nuts
Clark Brothers Bolt Co Milldale
The O K Tool Co Inc (T-Slot) 33 Hull St Shelton
The Blake & Johnson Co (nuts, machine screw-bolts, stove) Waterville

Bottle Bobbins
Sonoco Products Co (Climax-Lowell Div) Mystic

Box Board
National Folding Box Co New Haven
New Haven Pulp & Board Co New Haven
Robertson Paper Box Co Montville
The Lydall & Foulds Paper Co Manchester

Boxes—Paper—Folding
Atlantic Carton Corp Norwich
S. Curtis & Son Inc Sandy Hook
M. S. Dowd Carton Co Hartford
National Folding Box Co (paper folding) New Haven
The New Haven Pulp & Board Co New Haven
Robertson Paper Box Co Montville

Brake Lining
Colt's Patent Fire Arms Mfg Co Hartford
The Raybestos Div of Raybestos-Manhattan Inc (automotive and industrial) Bridgeport

Brass and Bronze
The American Brass Co (sheet, wire rods, tubes) Waterbury
The Bridgeport Rolling Mills Co Bridgeport
The Bristol Brass Corp (sheet, wire, rods) Bristol
The Miller Co (Phosphor bronze in sheets, strips and rolls) Meriden

Brass Goods
Sargent and Company New Haven
Scovill Manufacturing Co (To Order) Waterbury

Brass Mill Products
Bridgeport Brass Co Bridgeport
Scovill Manufacturing Co Waterbury

Brass Stencils—Interchangeable
The Fletcher Terry Co Box 415, Forestville

Brick—Building
The Donnelly Brick Co New Britain

Bricks—Fire
Howard Company New Haven

Brooms—Brushes
The Fuller Brush Co Hartford

Buckles
The Hatheway Mfg Co (Dee Rings) Bridgeport
The Hawie Mfg Co Bridgeport
The G E Prentice Mfg Co New Britain
John M Russell Mfg Co Inc Naugatuck
B Schwanda & Sons Staffordville
The Patent Button Co Waterbury

Buffing & Polishing Compositions
Apothecaries Hall Co Waterbury
Lea Mfg Co Waterbury

Buffing Wheels
The Williamsville Buff Mfg Co Danielson

Buttons
B Schwanda & Sons Staffordville
The Patent Button Co Waterbury
Colt's Patent Fire Arms Mfg Co Hartford
Scovill Manufacturing Co (uniform and tack fastened) Waterbury

Cabinets
The Charles Parker Co (medicine) Meriden

Cables—Wire
The Wiremold Co (armored, armored leaded and non-metallic sheathed cable) West Hartford

Carpet Lining
Palmer Brothers Co New London

Castings
The Charles Parker Co (gray iron) Meriden
The Derby Castings Co (heavy bronze) Seymour
The Bradley & Hubbard Mfg Co (grey iron, brass, bronze, aluminum) Meriden
The Sessions Foundry Co (gray iron) Bristol
John M. Russell Mfg Co Inc (brass, bronze and aluminum) Naugatuck
McLagon Foundry Co (gray iron) New Haven
Newton-New Haven Co (zinc and aluminum) 688 Third Ave West Haven
The Greist Mfg Co (white metal, slush, permanent moulds) 503 Blake St New Haven
Scovill Manufacturing Co (brass and bronze) Waterbury
Vanadium Metals Co (brass, bronze and aluminum) Groton
Union Mfg Co (gray iron) New Britain
Wilcox Crittenden & Co Inc (gray iron and brass) Middletown

Castings—Permanent Mould
The Bradley & Hubbard Mfg Co (zinc and aluminum) Meriden

Chain
John M Russell Mfg Co Inc Naugatuck

Chains—Bead
The Bead Chain Mfg Co Bridgeport

Chemicals
Naugatuck Chemical (Div of U S Rubber Prod Inc) Naugatuck & 1790 Broadway New York
Apothecaries Hall Co Waterbury
MacDermid Incorporated Waterbury
American Cyanamid & Chemical Corp Waterbury

Chloride of Lime
The Skat Co Hartford

Chromium Plating
Chromium Corp of America Waterbury

Chucks & Face Plate Jaws
Union Mfg Co New Britain

Clamps—Wood Workers
Sargent and Company New Haven

Clay
Howard Company (Fire Howard "B" and High Temperature Dry) New Haven

Cleansing Compounds
MacDermid Incorporated Waterbury

Clocks
The Ingersoll-Waterbury Co Waterbury

Clutch—Friction
The Carlyle Johnson Mach Co (The Johnson) Manchester

Comfortables
Palmer Brothers Co New London

Conduits
The Wiremold Co (flexible steel and non-metallic flexible) West Hartford

IT'S MADE IN CONNECTICUT

— CONTINUED —

Cones
Sonoco Products Co (Climax-Lowell Div) (Paper) Mystic

Consulting Engineers
The Stanley P Rockwell Co Inc (Consulting) 296 Homestead Ave Hartford

Contract Manufacturers
The Greist Mfg Co (metal parts and assemblies) 503 Blake St New Haven

Copper
The American Brass Co (sheet, wire, rods, tubes) Waterbury
The Bristol Brass Corp (sheet) Bristol
Scovill Manufacturing Co (pipe and service tubing) Waterbury

Copper Sheets
The New Haven Copper Co Seymour

Copper Shingles
The New Haven Copper Co Seymour

Copper Water Tube
Bridgeport Brass Co Bridgeport

Corrugated Paper & Fibre Products
The Danbury Square Box Co Danbury

Cork Cots
Sonoco Products Co (Climax-Lowell Div) Mystic

Corrugated Shipping Cases
Gair Thomas Containers Div of the Robert Gair Co Inc New London

Corsets
The Strouse, Adler Co 78 Olive St New Haven

Cosmetics
The J B Williams Co Glastonbury

Cotton Batting & Jute Batting
The Gilman Brothers Gilman
Palmer Brothers New London

Cotton Yarn
The Floyd Cranska Co Moosup

Counting Devices
Veeder-Root Inc Hartford

Cutlery
Remington Arms Co Inc Bridgeport
Sta-Brite Products Corp New Haven

Cut Stone
The Dextone Co New Haven

Cutters
The Barnes Tool Co (Genuine Barnes) New Haven
The Standard Machinery Co (rotary board, single and duplex) Mystic
The O K Tool Co Inc (inserted tooth milling) 33 Hull St Shelton

Dictating Machines
Dictaphone Corporation Bridgeport

Die Castings
Newton-New Haven Co Inc 688 Third Ave West Haven

Dies
The Hoggson & Pettis Mfg Co 141 Brewery St New Haven

Die-Heads—Self-Opening
The Eastern Machine Screw Corp Truman & Barclay Sts New Haven
The Geometric Tool Co New Haven

Dish Washing Machines
Colt's Patent Fire Arms Mfg Co Hartford

Dispersions of Rubber
Naugatuck Chemical (Div of U S Rubber Prod Inc) Naugatuck & 1790 Broadway New York

Draperies
Palmer Brothers Co New London

Drop Forgings
Wilcox Crittenden & Co Inc Middletown
The Blakeslee Forging Co Plantsville
Atwater Mfg Co Plantsville

Driers
American Mach & Fdry Co Crawford Oven Div (industrial) New Haven

Druggists Sundries
The Seamless Rubber Co Inc New Haven

Dyers and Finishers
The Aspinook Company Jewett City

Edged Tools
The Collins Co (axes and other edged tools) Collinsville

Elastic Cords & Braids
The Ansonia O & C Co Ansonia

Elastic Webbing
The Ansonia O & C Co Ansonia
The Russell Mfg Co Middletown

Electric Appliances
The Silex Co 80 Pliny St Hartford
Winsted Hardware Mfg Co Winsted

Electric Cables
Rockbestos Products Corp (asbestos insulated) New Haven

Electric Cords
Rockbestos Products Corp (asbestos insulated) New Haven

Electric—Commutators & Segments
The Cameron Elec Mfg Co (rewinding motors) Ansonia

Electric Fixture Wire
Rockbestos Products Corp (asbestos insulated) New Haven

Electric Heating Element & Units
Rockbestos Products Corp (asbestos insulated) New Haven

Electrical Instruments
The Bristol Co Waterbury

Electric Panel Boards
The Plainville Electrical Products Co Plainville

Electric Wire
Rockbestos Products Corp (asbestos insulated) New Haven
The Whitney Blake Co (Graybar Elec Co Exclusive Distributors) Hamden

Electrical Control Apparatus
The Trumbull Electric Mfg Co Plainville

Electrical Control Equipment
Colt's Patent Fire Arms Mfg Co Hartford

Electrical Goods
A C Gilbert Co New Haven
Colt's Patent Fire Arms Mfg Co Hartford

Electrical Switches
Colt's Patent Fire Arms Mfg Co Hartford

Elevators
The Eastern Machinery Co (passenger and freight) New Haven

Embalming Chemicals
The Embalmers' Supply Co Westport

Engines
Wolverine Motor Works Inc (diesel stationary marine) Bridgeport
Pratt & Whitney Aircraft Div United Aircraft Corp (aircraft) East Hartford

Envelopes
Curtis 1000 Inc Hartford

Extractors—Tap
The Walton Co 94 Allyn St Hartford

Eyelets
The Platt Bros & Co
P O Box 1030 Waterbury
Scovill Manufacturing Co Waterbury

Fasteners—Slide & Snap
The G E Prentice Mfg Co New Britain
Sargent and Co New Haven
The Patent Button Co Waterbury
Scovill Manufacturing Co (snap) Waterbury

Felt
American Felt Co Glenville

Fibre Board
The C H Norton Co North Westchester
The Wm Foulds & Company Manchester

Finger Nail Clippers
The H C Cook Co 32 Beaver St Ansonia

Firearms
Colt's Patent Fire Arms Mfg Co Hartford
Remington Arms Co Inc Bridgeport

Fire Hose
Fabrics Fire Hose Co (municipal and industrial) Sandy Hook

Fireplace Goods
The John P Smith Co (screens) 423-33 Chapel St New Haven
The Rostand Mfg Co Milford

Fireproof Floor Joists
The Dextone Co New Haven

Fishing Equipment
The Horton Mfg Co (reels, rods, lines) Bristol

Fishing Lines
The Bevin-Wilcox Line Co East Hampton

Fishing Tackle
The H C Cook Co 32 Beaver St Ansonia

Flashlight Cases
Scovill Manufacturing Co (metal) Waterbury

Flow Meters
The Bristol Co Waterbury

Forgings
Clark Brothers Bolt Co Milldale
Heppenstall Co (all kinds and shapes) Bridgeport
Scovill Manufacturing Co (non-ferrous) Waterbury

Foundries
Union Mfg Co (gray iron) New Britain
Wilcox Crittenden & Co Inc (iron brass aluminum and bronze) Middletown
The Sessions Foundry Co (iron) Bristol

Foundry Riddles
The John P Smith Co 423-33 Chapel St New Haven
Rolock Inc (brass, galvanized, steel) Southport

Furniture—Upholstered

Fuses
Colt's Patent Fire Arms Mfg Co Hartford

Galvanizing
Malleable Iron Fittings Co Branford
Wilcox Crittenden & Co Inc Middletown

Gauges
The Bristol Co (pressure, vacuum, indicating, recording and controlling) Waterbury

Gears
The Snow & Petrelli Mfg Co (reverse and reduction) New Haven

Glass Coffee Makers
The Silex Co 80 Pliny St Hartford

Glass Cutters
The Fletcher Terry Co Box 415, Forestville

Glass Working Equipment
Hartford-Empire Co Hartford

Golf Equipment
The Horton Mfg Co (clubs, shafts, balls, bags) Bristol

Graphite Crucibles & Products
American Crucible Co Shelton

Grinding
Centerless Grinding Works (production & custom) 70 Knowlton St, Brdidgeport

Grinding Wheels
The Bridgeport Safety Emery Wheel Co 1302 W Broad St Bridgeport

Hardware
Sargent and Co New Haven
Wilcox Crittenden & Co Inc (marine heavy and industrial) Middletown

Hardware—Trailer Cabinet
The Excelsior Hardware Co Stamford

Hardware, Trunk & Luggage
J H Sessions & Son Bristol

Hat Machinery
Doran Brothers, Inc Danbury

Headers
The E J Manville Machine Co Waterbury

Heat Treating
The Bennett Metal Treating Co 1045 New Britain Ave Elmwood
The Stanley P Rockwell Co Inc 296 Homestead Ave Hartford

Heat-Treating Equipment
The Stanley P Rockwell Co Inc (commercial) 296 Homestead Ave Hartford
The Wallace Barnes Co Div, Associated Spring Corp Bristol

Heating Apparatus
Crane Company Bridgeport

Heating Pads
The Seamless Rubber Co Inc New Haven

Highway Guard Rail Hardware
Malleable Iron Fittings Co Branford

Hinges
Sargent and Company New Haven
Homer D Bronson Company Beacon Falls

Hoists and Trolleys
Union Mfg Company New Britain

Hose Supporters
The Ansonia O & C Co Ansonia

Hose Supporter Trimmings
The Hawie Mfg Co (So-Lo Grip Tabs) Bridgeport

Hospital Supplies
The Seamless Rubber Co Inc New Haven

Industrial Finishes
Zapon Div Atlas Powder Co Stamford

Industrial Ovens
American Mach & Fdry Co, Crawford Oven Div (all processes — batch and conveyor types) New Haven

Insecticides
American Cyanamid & Chemical Corp Waterbury

Insulated Wire Cords & Cable
The Kerite Insulated Wire & Cable Co Inc Seymour
The Whitney Blake Co (Graybar Elec Co Exclusive Distributors) Hamden

Japanning
J H Sessions & Son Bristol

Key Blanks
Sargent and Company New Haven
The Graham Mfg Co Derby

Kitchen Tools
Wallace Bros Wallingford

Knit Goods
American Hosiery Company New Britain

Labels
J & J Cash Inc (Woven) South Norwalk
Naugatuck Chemical (Div of U S Rubber Prod Inc) (rubber) Naugatuck & 1790 Broadway New York

Lacquering
Ball & Socket Mfg Co (film application) West Cheshire

Lacquers & Synthetic Enamels
Zapon Div Atlas Powder Co Stamford

Ladders
A W Flint Co 136 Haven St, New Haven

Lamps
The Rostand Mfg Company (brass, colonial style & brass candlesticks) Milford
The Greist Mfg Co (portable, office, floor, table and novelty) 503 Blake St New Haven

Latex
Naugatuck Chemical (Div of U S Rubber Products Inc) Naugatuck & 1790 Broadway New York

IT'S MADE IN CONNECTICUT
— CONTINUED —

Leather
The Geo A Shepard & Sons Co (hat, garment & fancy) Bethel
Herman Roser & Sons Inc (Genuine Pigskin) Glastonbury

Leather Goods Trimmings
The G E Prentice Mfg Co New Britain

Lighting Equipment
The Miller Co (Miller, Duplexalite, Ivanhoe) Meriden

Lime
The Skat Co (unslaked) Hartford

Locks
Sargent and Company New Haven

Locks—Cabinet
The Excelsior Hardware Co Stamford

Locks—Suit-case and Trimmings
The Excelsior Hardware Co Stamford

Locks—Trunk
The Excelsior Hardware Co Stamford

Locks—Zipper
The Excelsior Hardware Co Stamford

Machinery
The Hallden Machine Company (mill) Thomaston
The Standard Machinery Co (bookbinders) Mystic

Machines
Andrew C Campbell Div American Chain & Cable Co Inc (cutting & nibbling) Bridgeport
The Patent Button Company Waterbury

Machines—Automatic
The A H Nilson Mach Co (Special) Bridgeport

Machines—Forming
The A H Nilson Mach Co (four-slide wire and ribbon stock) Bridgeport

Malleable Iron Castings
Malleable Iron Fittings Co Branford

Marine Equipment
The Rostand Mfg Co (portlights, deck, cabin and sailboat hardware) Milford
Wilcox Crittendon & Co Inc Middletown

Marking Devices
The Hoggson & Pettis Mfg Co New Haven

Mattresses
Palmer Brothers Co New London
Waterbury Mattress Co Waterbury

Measuring Instruments
The Bristol Co (long distance) Waterbury

Metal Cleaners
Apothecaries Hall Co Waterbury

Metal Cleaning Machines
Colt's Patent Fire Arms Mfg Co Hartford

Metal Goods
Bridgeport Brass Co (to order) Bridgeport

Metal Novelties
The H C Cook Co 32 Beaver St Ansonia

Metal Products—Stampings
J H Sessions & Son Bristol
The Greist Mfg Co 503 Blake St New Haven
Scovill Manufacturing Co (Made to Order) Waterbury

Metal Specialties
Winsted Hardware Mfg Co Winsted
The Excelsior Hardware Co Stamford
The G E Prentice Mfg Co New Britain
The American Buckle Co (sheet metal overall trimmings) West Haven
The Greist Mfg Co 503 Blake St New Haven

Metal Stampings
The Patent Button Co Waterbury
The Excelsior Hardware Co Stamford
J H Sessions & Son Bristol
The H C Cook Co 32 Beaver St Ansonia
The Greist Mfg Co 503 Blake St New Haven

Milk Bottle Carriers
The John P Smith Co 323-33 Chapel St New Haven

Mill Supplies
Wilcox Crittenden & Co Inc Middletown

Moulded Plastic Products
Colt's Patent Fire Arms Mfg Co Hartford

Mouldings
The Wiremold Co (surface metal race-ways) West Hartford

Moulds
The Hoggson & Pettis Mfg Co (steel) 141 Brewery St New Haven
The Sessions Foundry Co (heat resisting for non ferrous metals) Bristol

Nickel Anodes
Apothecaries Hall Co Waterbury
The Seymour Mfg Co Seymour

Nickel Silver
The Seymour Mfg Co Seymour

Nuts Bolts and Washers
Clark Brothers Bolt Co Milldale

Office Equipment
Underwood Elliott Fisher Co Hartford

Oil Burners
Malleable Iron Fittings Co Branford
The Silent Glow Oil Burner Corp 1477 Park St Hartford

Ovens
American Mach & Fdry Co, Crawford Oven Div (bakers' ovens—reel & conveyor types, industrial ovens—all types) New Haven

Paints and Enamels
Keeler & Long Inc. Waterbury
The Tredennick Paint Mfg Co Meriden

Paints and Varnishes
Keeler & Long Inc. Waterbury

Paperboard
Gair Thames Containers, Div of the Robert Gair Co Inc New London

Paper Boxes
Robertson Paper Box Co (folding) Montville
National Folding Box Co (folding) New Haven

Paper Clips
The H C Cook Co (steel) 32 Beaver St Ansonia

Paper Tubes and Cores
Sonoco Products Co (Climax-Lowell Div) Mystic

Parallel Tubes
Sonoco Products Co (Climax-Lowell Div) Mystic

Perfume Bases
Naugatuck Chemical (Div of U S Rubber Prod Inc) Naugatuck & 1790 Broadway New York

Pewter Ware
R Wallace & Sons Mfg Co Wallingford

Phosphor Bronze
The Seymour Mfg Co Seymour
The Bristol Brass Corp (sheet) Bristol

Pipe
The American Brass Co (brass and copper) Waterbury
Howard Co (cement well and chimney) New Haven
Crane Company (fabricated) Bridgeport
Bridgeport Brass Co (brass & copper) Bridgeport
Scovill Manufacturing Co (copper, red brass and yellow brass) Waterbury

Pipe Fitters' Tools & Equipment
The Barnes Tool Co (Genuine Barnes) New Haven

Pipe Fittings
Malleable Iron Fittings Co Branford

Plastic Products
The Seamless Rubber Co Inc (made of Bakelite) New Haven

Platers
The Patent Button Co Waterbury
The Plainville Electro Plating Co Plainville

Platers—Chrome
The Plainville Electro Plating Co Plainville

Platers' Equipment
MacDermid Incorporated Waterbury

Plumbers' Brass Goods
Bridgeport Brass Co Bridgeport
Scovill Manufacturing Co Waterbury

Plumbing Specialties
John M Russell Mfg Co Inc Naugatuck

Pole Line
Malleable Iron Fittings Co Branford

Polish
The Skat Co (auto and metal) Hartford

Polishing Wheels
The Williamsville Buff Mfg Co Danielson

Presses
The Standard Machinery Co (plastic molding, embossing, and die cutting) Mystic

Propellers—Aircraft
Hamilton Standard Propellers Div United Aircraft Corp East Hartford

Punches
The Hoggson & Pettis Mfg Co (ticket & cloth) 141 Brewery St New Haven

Putty Softeners—Electrical
The Fletcher Terry Co Box 415 Forestville

Pyrometers
The Bristol Co (recording and controlling) Waterbury

Railroad Equipment
The Rostand Mfg Co (baggage racks and mirrors for passenger cars) Milford

Rayon Yarns
The Hartford Rayon Corp Rocky Hill

Razors
Schick Dry Shaver Inc (electric) Stamford

Reamers
The O K Tool Co Inc (inserted tooth) 33 Hull St Shelton

Reclaimed Rubber
Naugatuck Chemical (Div of U S Rubber Prod Inc) Naugatuck & 1790 Broadway New York

Recorders and Controllers
The Bristol Co. (humidity, motion and operation) Waterbury

Refractories
Howard Company New Haven

Resistance Wire
The C O Jelliff Mfg Co Southport

Retainers
The Hartford Steel Ball Co (bicycle & automotive) Hartford

Reverse Gear—Marine
The Carlyle Johnson Mach Co Manchester

Riveting Machines
The Grant Mfg & Machine Co Bridgeport
The Raybestos Div of Raybestos-Manhattan Inc (brake service equipment) Bridgeport

Rivets
Clark Brothers Bolt Co Milldale
The Blake & Johnson Co (brass, copper and non-ferrous) Waterville
J H Sessions & Son Bristol
The Raybestos Div of Raybestos-Manhattan Inc (brass and aluminum tubular and solid copper) Bridgeport

Rods
The Bristol Brass Corp (brass and bronze) Bristol

Roof Coatings & Cements
Tilo Roofing Co Inc Stratford

Roofing—Built Up
Tilo Roofing Co Inc Stratford

Rubber Chemicals
Naugatuck Chemical (Div of U S Rubber Prod Inc) Naugatuck & 1790 Broadway New York

Rubber Dispersions
Naugatuck Chemical (Div of U S Rubber Prod Inc) Naugatuck & 1790 Broadway New York

Rubberized Fabrics
The Duro-Gloss Rubber Co New Haven

Rubber Footwear
The Goodyear Rubber Co Middletown
United States Rubber Prod Inc (Keds, Kedettes, Gaytees, U. S. Royal Footwear) Naugatuck

Rubber Goods
The Connecticut Hard Rubber Co New Haven
The Seamless Rubber Co Inc New Haven

Rubber Latex
Naugatuck Chemical (Div of U S Rubber Prod Inc) Naugatuck & 1790 Broadway New York

Rubbish Burners
The John P Smith Co 423-33 Chapel St New Haven

Safety Fuses
The Ensign-Bickford Co (mining & detonating) Simsbury

Scissors
The Acme Shear Company Bridgeport

Screw Machine Products
The Blake & Johnson Co Waterville
Centerless Grinding Works 70 Knowlton St Bridgeport
The Eastern Machine Screw Corp Truman & Barclay St New Haven
The Humason Mfg Co Forestville
Scovill Manufacturing Co Waterbury

Screws
The Blake & Johnson Co (machine) Waterville
Sargent and Company New Haven
Clark Brothers Bolt Co Milldale
The Charles Parker Co (wood) Meriden
The Bridgeport Screw Co (wood) Bridgeport
Scovill Manufacturing Co (cap and machine) Waterbury

Sewing Machines
The Greist Mfg Co (Sewing machine attachments) 503 Blake St New Haven
The Merrow Machine Co (Industrial) 2 Laurel St Hartford

Shaving Preparations
The J B Williams Co Glastonbury

Shears
The Acme Shear Co (household) Bridgeport

Sheet Metal Products
The American Brass Co (brass and copper) Waterbury

Sheet Metal Stampings
The Patent Button Co Waterbury
J H Sessions & Son Bristol

Shoe Laces
The Ansonia O & C Co Ansonia

Signals
The H C Cook Co (for card files) 32 Beaver St Ansonia

Silks
Cheney Brothers South Manchester

Silverware
International Silver Co (tableware, nickel silver, silver plate and sterling) Meriden
R Wallace & Sons Mfg Co (tableware, nickel silver, silver plate and sterling) Wallingford

IT'S MADE IN CONNECTICUT
— CONTINUED —

Silverware—Hotel & Institutional
International Silver Co Meriden
R Wallace & Sons Mfg Co Wallingford

Silverware—Plated Hollowware
International Silver Co Meriden
R Wallace & Sons Mfg Co (and flatware) Wallingford

Silverware—Sterling & Plated Trophies
International Silver Co Meriden
R Wallace & Sons Mfg Co Wallingford

Silverware—Sterling Silver Hollowware
International Silver Co Meriden
R Wallace & Sons Mfg Co (and flatware) Wallingford

Silverware—Tableware, Silver
International Silver Co Meriden

Silverware—Tableware, Silver Plate
International Silver Co Meriden

Silverware—Tableware, Sterling
International Silver Co Meriden

Sizing and Finishing Compounds
American Cyanamid & Chemical Corp Waterbury

Smoke Stacks
The Bigelow Company (steel) New Haven

Soap
The Skat Co (liquid and paste) Hartford

Speakers
Cinaudagraph Corp (High Fidelity for radios, motion picture houses and public address systems) Stamford

Special Parts
The Greist Mfg Co (small machined, especially precision stampings) 503 Blake St New Haven

Sponge Rubber
The Sponge Rubber Products Co Derby

Sporting Goods
The Seamless Rubber Co Inc New Haven

Spreads
Palmer Brothers Company New London

Spring Units
Owen Silent Spring Co Inc (mattresses and upholstery furniture) Bridgeport

Spring Washers
The Wallace Barnes Co Div Associated Spring Corp Bristol

Springs—Coil & Flat
The Humason Mfg Co Forestville
The Wallace Barnes Co Div Associated Spring Corp Bristol

Springs—Flat
The Wallace Barnes Co Div Associated Spring Corp Bristol

Springs—Furniture
Owen Silent Spring Co Inc Bridgeport

Springs—Wire
The Wallace Barnes Co Div Associated Spring Corp Bristol

Stainless Steel Ware
Sta-Brite Products Corp New Haven

Stair Pads
Palmer Brothers Company New London

Stamps
The Hoggson & Pettis Mfg Co (steel) 141 Brewery St New Haven

Stampings—Small
The Wallace Barnes Co Div Associated Spring Corp Bristol

Staples
Sargent and Company New Haven
E H Hotchkiss Company 10-16 Hoyt St Norwalk

Stapling Machines
E H Hotchkiss Company 10-16 Hoyt St Norwalk

Steel Castings
The Hartford Electric Steel Co (carbon and alloy steel) 540 Flatbush Ave Hartford
Malleable Iron Fittings Co Branford
Nutmeg Crucible Steel Co Branford

Steel—Cold Rolled Spring
The Wallace Barnes Co Div Associated Spring Corp Bristol

Steel—Cold Rolled Stainless
Wallingford Steel Company Wallingford

Steel—Cold Rolled Strip and Sheets
Wallingford Steel Company Wallingford

Steel Goods
Scovill Manufacturing Co (To Order) Waterbury

Stop Clocks, Electric
The H C Thompson Clock Co Bristol

Studio Couches
Waterbury Mattress Co Waterbury

Surgical Supplies
The Seamless Rubber Co Inc New Haven

Switchboards
Plainville Electrical Products Co Plainville

Switchboard Wires and Cables
Rockbestos Products Corp (asbestos insulated) New Haven

Switches
Colt's Patent Fire Arms Mfg Co Hartford

Tableware—Stainless Steel
International Silver Co Meriden
R Wallace & Sons Mfg Co Wallingford

Tableware—Tin Plate
Wallace Bros Wallingford

Tacking Machines
E H Hotchkiss Company 10-16 Hoyt St Norwalk

Tanks
The Bigelow Company (steel) New Haven

Tape
The Seamless Rubber Co Inc New Haven
The Russell Mfg Co Middletown

Tap Extractors
The Walton Co 94 Allyn St Hartford

Taps, Collapsing
The Geometric Tool Co New Haven

Tarred Lines
Brownell & Co Inc Moodus

Textile Machinery
The Merrow Machine Company 2 Laurel St Hartford

Thermometers
The Bristol Co (controlling, recording and indicating) Waterbury

Thread
Max Pollack & Co Inc Groton
The American Thread Co Willimantic
The Gardiner Hall Jr Co (cotton sewing) South Willington

Threading Machines
The Grant Mfg & Machine Co (double and automatic) Bridgeport

Timers, Interval
The H C Thompson Clock Co Bristol

Tinning
Wilcox Crittenden & Co Inc Middletown

Tools
The Hoggson & Pettis Mfg Co (rubber workers) 141 Brewery St New Haven
The O K Tool Co Inc (inserted tooth metal cutting) 33 Hull St Shelton

Toys
A C Gilbert Company New Haven
The Gong Bell Co East Hampton
The N. N. Hill Brass Co East Hampton

Transmissions
New Departure Div of General Motors (variable speed) Bristol

Trucks—Lift
The Excelsior Hardware Co Stamford

Trucks—Skid Platforms
The Excelsior Hardware Co (lift) Stamford

Tube Clips
The H C Cook Co (for collapsible tubes) 32 Beaver St Ansonia

Tubing
The American Brass Co (brass and copper) Waterbury
Scovill Manufacturing Co (copper alloys) Waterbury

Tubing—Condenser
Scovill Manufacturing Co Waterbury

Twine
The Undine Twine Mills Inc Moodus

Twine—Cable Cord
The Undine Twine Mills Inc Moodus

Twine—Chalk Line
The Undine Twine Mills Inc Moodus

Twine—Mason Line
The Undine Twine Mills Inc Moodus

Twine—Sail
The Undine Twine Mills Inc Moodus

Twine—Seine
Brownell & Co Inc Moodus
The Undine Twine Mills Inc Moodus

Twine—Trot Line
The Undine Twine Mills Inc Moodus

Typewriters
Underwood Elliott Fisher Co Hartford

Typewriter Ribbons
Underwood Elliott Fisher Co Hartford

Underclearer Rolls
Sonoco Products Co (Climax-Lowell Div) Mystic

Vacuum Cleaners
The Spencer Turbine Co Hartford

Valves
Reading-Pratt & Cady Div, American Chain & Cable Co Inc Bridgeport

Valves—Automatic Air
Beaton & Cadwell Mfg Co New Britain

Valves—Flush
Beaton & Cadwell Mfg Co New Britain

Valves—Relief & Control
Beaton & Cadwell Mfg Co New Britain

Venetian Blinds
The Permatex Fabrics Co Jewett City

Venetian Blind Webs
The Russell Mfg Co Middletown

Ventilating Systems
Colonial Blower Co Hartford

Vises
The Charles Parker Co Meriden

Washers
The Blake & Johnson Co (brass, copper & non-ferrous) Waterville
American Felt Co (felt) Glenville
Clark Brothers Bolt Co Milldale
The Sessions Foundry Co (cast iron) Bristol
J H Sessions & Son Bristol

Watches
Benrus Watch Co 30 Cherry St Waterbury
The Ingersoll-Waterbury Co Waterbury

Webbing
The Russell Mfg Co Middletown

Welding Rods
The Bristol Brass Corp (brass & bronze) Bristol

Wicks
The Russell Mfg Co Middletown

Wire
The Bristol Brass Corp (brass and bronze) Bristol
The Driscoll Wire Co (steel) Shelton
Hudson Wire Co Winsted Div (insulated & enameled magnet) Winsted
The Atlantic Wire Co (steel) Branford
The Bridgeport Screw Co (scratch brush) Bridgeport
The Platt Bros & Co (zinc wire) P O Box 1030 Waterbury
Rockbestos Products Corp (asbestos insulated) New Haven
Scovill Manufacturing Co (brass, bronze and nickel silver) Waterbury

Wire Arches and Trellis
The John P Smith Co 423-33 Chapel St New Haven

Wire Baskets
Rolock Inc (for acid, heat, degreasing) Southport

Wire Cable
The Bevin-Wilcox Line Co (braided) East Hampton

Wire Cloth
The C O Jelliff Mfg Corp Southport
The John P Smith Co 423-33 Chapel St New Haven

Wire Connectors
The Wiremold Co West Hartford

Wire Drawing Dies
The Waterbury Wire Die Co Waterbury

Wire Dipping Baskets
The John P Smith Co 423-33 Chapel St New Haven

Wire Forms
The Humason Mfg Co Forestville
The Wallace Barnes Co Div Associated Spring Corp Bristol

Wire Goods
The Patent Button Co Waterbury
The American Buckle Co (overall trimmings) West Haven
Scovill Manufacturing Co (To Order) Waterbury

Wire Mesh
Rolock Inc (all meshes and metals) Southport

Wiremolding
The Wiremold Co West Hartford

Wire Reels
The A H Nilson Mach Co Bridgeport

Wire Partitions
The John P Smith Co 423-33 Chapel St New Haven

Wire Rings
The American Buckle Co (pan handles and tinners' trimmings) West Haven

Woodwork
C H Dresser & Son Inc (Mfg all kinds of woodwork) Hartford

Yarns
The Ensign-Bickford Co (jute carpet) Simsbury

Zinc
The Platt Bros & Co (ribbon, strip and wire) P O Box 1030 Waterbury

Zinc Castings
Newton-New Haven Co Inc 688 Third Ave West Haven

Service Section

On account of space limitations, the material and used equipment items offered for sale by Association members have not been classified by sizes or usage best adapted. Full information will be given on receipt of inquiry. Listing service free to member concerns. All items offered subject to prior sale.

for sale or rent

FOR RENT. In Hartford, Connecticut, units of 5,000 to 16,000 sq. ft. in fully sprinklered modern building suitable for light or heavy manufacturing. Elevator, heat, watchman service included in rental. New York, New Haven and Hartford Railroad siding available. Out of flood area. Will rent at reasonable rates. For particulars apply to Billings and Spencer Company, Nelson Smith, 75 Pearl Street, Hartford, or your own broker.

FOR SALE. One Elliott Addressing Machine in good condition. For further particulars and price, Address S. E. 95.

WANTED. A used 20 foot trailer, without furniture; one formerly used for demonstrating products would answer. Address Charles A. Post, 476 Capitol Avenue, Hartford, Conn. Tel. 2-4195.

FOR SALE. 1 Universal Displayer with five wings, size 26 x 43; also 2 Hooven Typewriters. Make us your best offer. Address S. E. 98.

EQUIPMENT FOR SALE. Quantity of line shafting with steel and wood pulleys. Counter shafts with loose pulleys and hangers. No. 14 Rockwood Base. Address S. E. 99.

FOR SALE. Wood Bending Business. Machinery, tools, forms, patterns and some lumber. Business now operating, but space occupied by this department required for other purposes. Sales to furniture, sporting goods, boat building and aircraft industries. Pratt, Read & Co., Inc., Deep River, Connecticut.

FOR SALE. 100 H. P. Ames Steam Engine direct connected to 2 phase 240 volt Generator, complete with switchboard, transformer, etc. Excellent condition. This unit is reasonably priced for early disposal. Address S. E. 104.

FOR SALE. (1) Diesel Engine, one cylinder, 2 cycle "Primm" 35 H.P. 300 RPM Heavy Duty. Complete with air compressor, starting equipment, water and oil pump, clutch, out bearing, in A1 condition. Can be seen running. Address S. E. 105.

wanted - to buy

WANTED. Want one 50 or 60 KW alternating generator, 240 volts, direct connected to suitable engine. Also want one 10 to 25 KW, 60 cycle AC generator. Address S. E. 106.

WANTED. 1 Steam Underwriter's Fire Pump, capacity 750 gallons per minute upward. In answering please quote price and condition. Address S. E. 107.

WANTED. 1 platform scale with a capacity of approximately 3500 pounds, with dial. In writing please state condition and price. Address S. E. 108.

employment

TRAFFIC MAN. Young married man, 33, who has had 15 years' experience as a rate clerk and traffic man. Compiled tariffs for rate bureau on special assignment. Has good knowledge of industrial traffic work. He seeks traffic position with Connecticut or New England concern. Address P. W. 406.

FINANCIAL EXECUTIVE. Thoroughly qualified in all phases of general and cost accounting systems, budgets, finance, office management, insurance, credits, etc. Competent organizer with constructive and analytical mind. Desires connection where ability can be utilized to good advantage. Christian, university graduate, age 35, married, now employed. For interview address P. W. 407. (A. M. J.)

MANUFACTURING EXECUTIVE. Pressed and deep drawn metal stampings; screw machine products; castings, and hot forgings. Thorough knowledge of office routine; purchasing; costs; including budgetary control; design engineering; the development of new lines of work; tooling-up; materials handling; modern production methods; wage systems; time study with rate setting: employment problems including hospitalization; vestibule training; insurance; safety engineering; incentives, etc. Syndicate and premium goods in all finishes a specialty. Member American Society Mechanical Engineers. Now employed Factory Manager, and desirous of locating in the East. Address P. W. 408.

Alert young executive with three successful years as assistant superintendent would like to connect with progressive organization where his knowledge of production, wage incentives and factory systems will be of assistance in helping it to grow. Address P. W. 409.

Office and Factory executive with long experience wishes a position as either Office or General Manager of a medium sized Manufacturing Plant having a product with future possibilities. Salary expected to start, a living wage for a married man. Finest of references can be given and other details explained at an interview. At present employed. P. W. 410.

Patent Solicitor. Mechanical engineer in research and development field, general experience in all phases of patent practice, preparation and prosecution of patent applications, thorough, conscientious worker. Has handled sundry inventions, manufactured products, some experience in typewriters. Desires position with patent attorney or corporation patent department. Moderate salary. Address P. W. 411.

YOUNG MAN. High School graduate who did his best work in shop, mechanical drawing, and science, who says very little but what he does say is right to the point, seeks an opportunity to serve a manufacturer where he may secure further practical apprentice training. He is highly recommended by his teachers and by the head of the personnel department of the High School which he attended. He is strictly honest, trustworthy and one competent to advance in a mechanical occupation. For interview address P. W. 412.

Industrial Chemist. B. S. 1933. Age 26, married. Four years' experience as control and development chemist in field of organic and inorganic rubber chemicals and intermediates. Experiences in pilot plant operation. Steady and willing worker. Available immediately. Address P. W. 413.

Young Mechanical Engineer. Young man, age 23, with a B. S. degree in mechanical engineering, who has had over 2 years' experience in factory work as an inspector, set-up man, as well as experience in the designing of tools and gauges, seeks a connection with a Connecticut manufacturer where his training and experience may be utilized to best advantage. His greatest desire is to design and produce labor saving machinery. For interview address P. W. 414.

Production Superintendent or Manager. Man who has had 10,000 hours as an apprentice machinist and tool maker, engineering course and some 20 years' experience in tool, die and fixture work, and general machine work, and who has acted as foreman, superintendent and general manager and assistant treasurer for well-known Connecticut manufacturing plants, seeks a new connection in any one of these fields, because of recent management changes in the company he has served for the past 5 years. Address P. W. 415.

PERSONNEL. Young man with broad work experience and thorough training in sociology and psychology desires position in industrial relations or personnel work with manufacturer. Wants opportunity for a career, not merely "a job." Address P. W. 416.

DESIGN ENGINEER. Successful record in design of precision mechanism; cost and sales conscious. Has demonstrated organizing ability, and capacity for adjusting himself to new situations. Recognizes when suggestions are orders, and has efficiently directed small groups. Age 28, married, excellent references. Address P. W. 417.

AVAILABLE. U. S. Naval Academy graduate (B. S. Degree). Age 33, 12 years' sales work. Any location. Sales engineering desired, but will consider any other suitable opening. Address P. W. 418.

Chemist. Young man, age 26, with an A. B. degree in chemistry in the field of organic and inorganic carbon compounds desires position along this line. For interview address P. W. 419.

Young Man, Private school and college education, experience as newspaper correspondent and in retail merchandising. Has done newspaper feature writing, free lance writing and advertising copy writing. Desirous of connection with advertising agency or in advertising or public relations department of a Connecticut industrial firm. Address P. W. 420.

"Insure"

Your Insurance!

INSURANCE policies can no more arrange themselves into a program of protection than bricks and mortar can of themselves become a wall. There must be *intelligent selection* of those contracts best suited to your personal needs or the needs of your firm—as the case may be.

The Ætna Plan is a proved system for determining accurately the insurance program best suited to your exact specifications. It includes a permanent visible record of existing policies, practical suggestions for improving or reducing the cost of present insurance, an analysis of serious uninsured hazards. The Ætna Plan has as its objective economy with safety, maximum protection at minimum cost.

Available to you only through qualified Ætna representatives, it eliminates chance from your insurance structure.

Beyond the initial survey of existing conditions and the resultant recommendations, the Ætna agent will provide a continuing service at regular intervals to make certain that your insurance continues *"in balance."*

There is a local Ætna-izer right in your own community to whom you may safely entrust all your insurance problems. You will find him a competent insurance adviser and through him you can obtain all the many worthwhile services for which the Ætna is so highly esteemed by its hundreds of thousands of satisfied policyholders.

It Pays to Be Ætna-ized

The Ætna Casualty and Surety Company

Hartford Connecticut

Get the Answer NOW — by telephone!

LONG DISTANCE removes the restrictions of time and distance; message and reply become a matter of seconds only. Get the answer, discuss details, make decisions—by telephone—and be free for other affairs . . . Long Distance telephone service costs little — saves much at today's low rates.

THE SOUTHERN NEW ENGLAND TELEPHONE COMPANY

DWO

ADVERTISING ART
PHOTO ENGRAVING

Printers and *at* THE SIGN *of* *the* STONE BOOK *Bookbinders*

Judge the value of your advertising by the profits it brings you, not by its initial cost.

The Case, Lockwood & Brainard Co.
85 Trumbull Street Hartford, Conn.